Homestead National Monument of America

RESOURCE MANAGEMENT PLAN

Prepared by: _____ 1/2/00
Park Ranger — Date
Homestead NM of America

Recommended by: _____ 1/25/00
Chief of Interpretation — Date
and Resources Management
Homestead NM of America

Submitted by: _____ 1/25/2000
Superintendent — Date
Homestead NM of America

Concurred by: _____ 2/8/00
Chief, Natural Resources — Date
Midwest Region, NPS

Approved by: _____ 2/8/00
Regional Director — Date
Midwest Region, NPS

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RESOURCE MANAGEMENT PLAN
HOMESTEAD NATIONAL MONUMENT
OF AMERICA

I. INTRODUCTION

Homestead National Monument of America, located in southeastern Nebraska, is the site of one of the first homesteads claimed in the United States under the Homestead Act of 1862. The Monument was established by an Act of Congress on March 19, 1936 (49 Stat. 1184) to "... retain for posterity a proper memorial emblematical of the hardships and the pioneer life through which the early settlers passed on the settlement, cultivation, and civilization of the great West." On September 25, 1970, Congress added the Freeman School parcel to "further the interpretation and commemoration of the pioneer life of early settlers of the West."

The United States owns in fee simple the original 162.73-acre Freeman homestead and the 1.2-acre Freeman School parcel. Scenic easements totaling 18.18 acres protect the Freeman School viewshed north and west of the Visitor Center. Although located on Federal lands within the Monument's boundary, the Nebraska Department of Roads operates and maintains the right-of-way for State Highway 4. This activity is authorized by a renewable special use permit. The original homestead now consists of approximately 100 acres of restored native tallgrass prairie, 60 acres of hardwood forest, and nearly 3 acres of buildings, roads, and trails.

The General Management Plan (1999) identifies the following management goals for natural and cultural resource management. These goals also reflect those found in the Homestead National Monument of America Strategic Plan (1997):

GOAL CATEGORY I: PRESERVE PARK RESOURCES

Mission Goal Ia: Natural, historic, and cultural resources and associated values at Homestead National Monument of America are protected, reconstructed, and maintained in good condition and managed within their broader historic and cultural context.

Mission Goal Ib: Homestead National Monument of America contributes to knowledge about natural and cultural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.

GOAL CATEGORY II: PROVIDE FOR THE PUBLIC ENJOYMENT AND VISITOR EXPERIENCE OF PARKS

Mission Goal IIb: Park visitors and the general public understand and appreciate the preservation of Homestead National Monument of America and the National Park Service for this and future generations.

In addition to the goals listed above, the General Management Plan lists four significant points of the Monument, two of which apply directly to resource management:

- The Homestead Act had a profound influence on migration, immigration, agricultural development, industrial development, federal land policy, native cultures, and the landscape of the West.
- Portions of the reconstructed tallgrass prairie offer historic and scientific research value.

From these goals, several specific resource management objectives are derived. They are as follows:

- Provide for the continued management and maintenance of the restored tallgrass prairie through the use of several techniques to include prescribed fire, mowing, manual cutting, and possible use of herbicides when warranted.
- Continue management for the reduction of exotic, invasive plant species.
- Promote the continued gathering of information about various taxa and abiotic components of the Monument's natural resources through the NPS Inventory and Monitoring program as well as work by the Long-Term Ecological Monitoring (LTEM) program.
- Provide for protection of the Monument's natural resources, cultural resources, and archeological sites through monitoring and patrolling by staff.
- Provide for the maintenance of the historic structures.
- Provide for the proper storage, monitoring, security, and fire protection of the Monument's museum objects both on-site and at the Midwest Archeological Center.
- Work with natural and cultural resource managers to implement various facets of the Cultural Landscape Report in an effort to provide a true representation of a Homestead scene.
- Continue to provide educational opportunities for various facets of the public regarding the natural and cultural resources at Homestead through interpretive programs, special events, the Monument's web site, special press releases and articles, and other media.

In order to provide proper management and preservation of park resources and resource values, the staff of Homestead National Monument of America has entered into partnerships with two National Park Service offices - the Long Term Ecological Monitoring program and the Midwest Archeological Center. These entities provide expertise in monitoring the condition of natural and cultural resources and work with the staff to formulate prescriptions and procedures for management and preservation of resources.

The Resource Management Plan presents an overview of the cultural and natural resource issues. The plan proposes alternatives for management in order to meet the general management objectives of Homestead National Monument of America and the National Park Service. Guidance for resource management is obtained from the Organic Act (1916), the Monument's enabling legislation, the General Management Plan (1999), Resource Management Plan (1999), Prairie Management Action Plan (1993), Collection Management Plan (1987), Collection Condition Survey (1989), and other related documents.

II. PRESENT RESOURCE STATUS

Natural Resource Baseline Data

The Monument does not possess data to meet the recommended level of natural resource information as outlined in NPS-75, Natural Resource Inventory and Monitoring Guideline, Appendix A. A vegetation study (Sutton 1984) provided the Monument with some base line data on prairie species composition. An herbarium was established with samples of most major prairie grass and forb species. A vegetation monitoring program , begun in 1992, has provided some composition data on the various prairie management units.

Baseline data has not been compiled for the woodlands area of the Monument. No baseline data is available on either air quality or the quality of ground water. However, studies were performed by the LTEM on vegetation, birds, butterflies, and lichens.

Natural Resources

Homestead National Monument of America is located on a quarter section (160 acres) of land near Beatrice, Nebraska. Approximately 100 acres of the Monument is composed of restored native tall grass prairie. The remaining area is forested except for a small developed area containing the Visitor Center, a restored pioneer cabin, and several administrative buildings. A detached area, the Freeman School, contains approximately .75 acres of virgin native prairie. Another 1.2 acres adjacent to the Freeman School was acquired in 1992 and a portion of that area will be restored to tallgrass prairie.

The restored tallgrass prairie is one of the Monument's primary natural resources. The restoration was begun in 1939 as an effort to combat erosion on the heavily cultivated Freeman farm as well as to present a "snapshot" of the natural pre-settlement scene. The primary threats to the restoration are spreading thickets, invasion of smooth brome and succession of the prairie to woodlands along the present woodland edge.

A deciduous forest covers approximately 64 acres of the Monument. The primary tree species include ash, oak, hackberry, elm, cottonwood, walnut, and dogwood.

Cub Creek, a tributary of the Big Blue River, meanders approximately 2.5 miles through the Monument. Fish known to live in Cub Creek include carp, channel catfish, and several species of sunfish and minnows.

Wildlife is relatively abundant in and around the Monument. Species known to inhabit or migrate through the Monument include white-tail deer, beaver, muskrat, coyote, rabbits, and squirrels. Common reptiles and amphibians include garter snakes, bull snakes, tree frogs, and other common frogs and toads. Over 100 species of birds have been sighted within the Monument boundary. Game species such as pheasant and quail are common, with occasional sightings of wild turkey.

Cultural Resource Baseline Information

Baseline information for cultural resources can be found in the following documents:

Plan/Document	**Date**	**Adequacy**
Historic Resources Study	1943	Needs updating
Museum Exhibits Plan	1960	Needs updating
Historic Furnishing Report Palmer-Epard Cabin	1968	Contains general information only
Historic Structures Report Palmer-Epard Cabin	1969	Scheduled for revision by MWRO
Historic Structures Report Freeman School	1973	Contains some inaccurate information
Historic Furnishing Report Freeman School	1973	Satisfactory
Long-Range Interpretive Plan	1996	Needs updating
Comprehensive Interpretive Plan	1996	Satisfactory
Park Administrative History	1962 & 1982	Needs updating
Scope of Collection Statement	1991	Needs updating
Cultural Sites Inventory	1986	Needs updating

Collection Management Plan	1987	Needs updating
Collection Condition Survey	1989	Needs updating
Cultural Landscape Report	1999	In draft phase

Cultural Resources

The Monument is on the National Register of Historic Sites and is considered a cultural site. The tallgrass prairie is a restored pre-settlement scene that contains four building sites occupied by the Freeman family, the Daniel and Agnes Freeman graves, a Daughters of the American Revolution Monument, and a hedge row of osage orange trees planted by Daniel Freeman.

The Freeman School is another major cultural resource. The school, built in 1873, was added to the Monument by Act of Congress in 1970, and restored by the NPS in 1978. There are three historic outbuildings associated with the Freeman School site.

The Monument houses a museum collection consisting of nearly 5,000 objects. The collection contains cultural artifacts and natural history specimens. Most artifacts relate to the period between 1862 and 1890. The collection is very deficient in items from 1890 to 1936.

The collection includes household goods and furnishings, farm tools and implements, 19th century vehicles and machinery, clothing and personal accouterments, weapons, books and other archival material, school furnishings, a herbarium, and an entomology collection. Approximately 11,900 archeological objects in the collection are housed at the Midwest Archeological Center in Lincoln, Nebraska.

Cultural Context/Theme

Cultural resources at Homestead National Monument of America can be viewed in the historical context of the western expansion of the United States from approximately 1860 until 1936. The Homestead Act of 1862 and its subsequent influence on the immigration and settlement of the western states is a primary theme represented at the Monument. The types of cultural resources represented at Homestead include a typical pioneer cabin; a typical one-room school house; and a museum collection representing the many aspects of pioneer life in the late-19th century.

III. NATURAL AND CULTURAL RESOURCE MANAGEMENT PROGRAMS

Overview of Current Program and Needs

Natural Resources

One long-term management goal at Homestead National Monument of America has been to restore a portion of previously cultivated and disturbed land to the approximate appearance and species composition representative of the tallgrass prairie in the 19th century. Prairie restoration is a long-term process that is measured in decades and not years.

The upland prairie (covering approximately 60 acres) is in relatively good condition and will be managed through monitoring and maintenance actions that react to changing environmental conditions. Prescribed fire, mowing/mulching/haying, manual removal of exotic species, and selective use of herbicides may be used on a continuing basis to maintain the integrity of the restored prairie. The threat of erosion and the encroachment of exotic grasses and woody species will be monitored and documented. Species diversity and exotic species encroachment will be monitored, by Long-Term Ecological Monitoring (LTEM) personnel using standard species monitoring techniques.

The lowland and woodland edge sections of the prairie, as well as that area between the osage orange hedgerow and uplands trail, are still being treated for a majority of the exotic species invasion. Prescribed burning as well as manual reduction, have proven to be effective in retarding the spread of exotics. A section of the lowland prairie was used during the 1970's for agricultural demonstrations and again in the late 1990's for a historic mowing/haying demonstration area.

This activity has proven to be helpful in reducing the amount of woody species in this area. Again, monitoring by the LTEM is being accomplished. Specific prairie management actions are contained in the Prairie Management Action Plan (1993).

The Monument contains approximately 60 acres of woodlands. The woodlands which existed at the time of land acquisition for the Monument had been thinned due to usage by the Freeman family for building materials and fuel. A reforestation effort was undertaken in the 1930's to restock native tree species.

There have been no official vegetation surveys of the tree species or the understory plant species, therefore no monitoring activities have occurred within the woodland unit. Due to winter storms, thunderstorms, and high winds, many large trees have been downed and have accumulated. This has resulted in a hazardous fuel situation which presents a potential for fire escapes from the woodlands should an ignition occur.

Another activity that is needed is a deer census study to determine the level of population of white-tailed deer within the park. Numerous deer trails are observed within the Monument boundaries, especially in the woodlands unit, however the number of individuals that are observed vary over time. It is unknown as to whether the deer population is permanent or transient. This is an important distinction that needs to be determined in order for proper management decisions to be made.

Over the years, park managers have received complaints from area residents about the size and presence of the deer herd. There have been complaints about the deer coming from the Monument to feed upon gardens and ornamental plants within the yards of local homeowners. Additionally, during each fall and winter season there are several motor vehicle accidents that are caused within the Monument boundaries by deer running onto State Highway 4.

Other critical aspects of Homestead's natural resource management program include erosion control, wildlife management, water quality, management of the osage orange hedgerow, and trail management. Some management projects involve research, data collection, and monitoring. Other actions involve maintaining existing conditions and continuing programs to restore natural systems.

The Monument wishes to enter into partnerships with local landowners and the Natural Resource Conservation Service through the Conservation Resource Enhancement Program. This program would allow the Monument to work, through the NRCS, in partnership with landowners along the Cub Creek watershed and adjacent areas in returning croplands to native plant species. This will enhance water quality in Cub Creek by providing buffers along the main channel and feeder streams. Reintroduction of native species will also slow the spread of non-native invasive species from private lands onto the Monument.

Cultural Resources

A long-term goal of cultural resource management is appropriate maintenance and preservation of the museum collection and historic structures. Another major goal is to manage the resources in a manner that provides maximum public access and high quality interpretation that inspires appreciation for the heritage preserved at Homestead.

In the spring of 1999, the Monument received funding for a term GS-7 Museum Technician through the Cultural Resource Preservation Program. This position is responsible for mitigating the backlog of issues identified on the 1996 Museum Preservation Checklist.

A portion of the job duties will also entail the revision of the museum management guidance documents, the latest of which was updated in 1991. These documents will provide guidance on museum preservation efforts utilizing present-day methodology.

The Museum Technician position has already made great progress in formalizing the monitoring of museum environmental conditions, developing an Integrated Pest Management Plan for museum and exhibit spaces, and working with the Denver Service Center in improving security and fire prevention in museum and exhibit spaces. The incumbent of the position has also prescribed cleaning schedules for the Monument's historic structures.

Enhancing visitor appreciation and understanding of cultural and natural resources is a major management goal. The measurement of this satisfaction level was initiated in 1998 by the use of the Service-wide Visitor Satisfaction Survey. This survey will be continued. The data gained from this survey has been useful in identifying visitor demographics, visitor satisfaction, and visitor understanding of the main themes of the Monument. This data has been extremely helpful in formulating goals for the Government Performance and Results Act (GPRA) Strategic Plan for the Monument in terms of the interpretation of the cultural and natural resources.

The General Management Plan (1999) calls for the construction of a Heritage Center. This proposed Heritage Center will house increased museum space, collections storage, and a computerized database of homesteading records.

It is also proposed that the Palmer-Epard Cabin be moved into the Center. This would allow for the cabin to be placed in a controlled climate, thus reducing the damage by weathering as well as that caused by pests. The Palmer-Epard Cabin, in its present situation, is not within an accurate physical historical setting. Therefore, state-of-the-art exhibits would be used indoors to depict a more typical homestead setting in context with the cabin.

Agricultural history is another aspect of cultural resources management that is addressed within the enabling legislation. Presently there are several pieces of antique farm equipment on display on the back porch of the Visitor Center and in the farm implement building. The proposed Heritage Center will also house such objects, and will provide increased space for more acquisitions from the interpretive time period from 1863 to 1936.

Personnel

Currently, the program management duties for natural resource management are assigned to a GS-9 Park Ranger. These include updating the Resource Management Plan, proposing work projects and funding proposals, and assigning work in natural resources.

A seasonal Park Ranger assists with the field portion of the natural resource activities to include monitoring and mitigation activities. The Monument uses Student Conservation Association Resource Assistants in the summer and fall to accomplish routine natural resources work in photostation monitoring, vegetation transect surveys, water quality monitoring (macroinvertebrate sampling), and exotic vegetation management.

The Chief of Interpretation and Resources Management has responsibility for all supervisory, planning and managerial requirements of visitor services and interpretation, visitor/resource protection, maintenance, and natural and cultural resource management. Administrative aspects of supervision and division planning utilize the majority of this position's function.

A term Museum Technician GS-7 position was established in the spring of 1999. This position is responsible for the mitigation of the Monument's Museum Preservation Checklist, as well as all routine museum operations and formulation of museum management guidance documents.

A recommendation for the management of the Monument's natural and cultural resources would be an increase in staffing. The addition of a Resource Management Specialist would be ideal to direct staff in the specific requirements of natural and cultural resource management projects.

Your search found projects with a total cost of **$ 16,000.00**

Cost of project is rounded to the nearest hundred.

Total cost of all projects is rounded to the nearest thousand.

Search Conditions:

, **Alpha Code** = 'HOME' ,**Target Funding Source** = NRPP - Natural Resource Management ,**Project Type** = Non Facility **ORDER BY** alphacode,regionpriority,targetfundingsource

Alpha Code	Regional Priority	Target Fund Source	Project Title	Review Level
HOME *1718*	219.00	NRPP - Natural Resource Management	[illegible] for Update Prairie Vegetation Inventory Complete Herbarium	REGION Approved
			16,000	

Your search found projects with a total cost of **$ 20,000.00**

Cost of project is rounded to the nearest hundred.

Total cost of all projects is rounded to the nearest thousand.

Search Conditions:

Funding source not assigned , **Alpha Code** = 'HOME' ,**Target Funding Source** = NRPP - Research/BRD **ORDER BY** alphacode,regionpriority,targetfundingsource

Alpha Code	Regional Priority	Target Fund Source	Project Title	Review Level
HOME *1717*	254.00	NRPP - Research/BRD	[illegible] for Deciduous Forest Baseline Inventory	REGION Approved
			20,000	

Your search found projects with a total cost of **$ 214,000.00**

Cost of project is rounded to the nearest hundred.

Total cost of all projects is rounded to the nearest thousand.

Search Conditions:

Funding source not assigned , **Alpha Code** = 'HOME' ,**Target Funding Source** = NRPP - Small Parks

ORDER BY alphacode,regionpriority,targetfundingsource

Alpha Code	Regional Priority	Target Fund Source	Project Title	Review Level
HOME *1703*	2.00	NRPP - Small Parks	for Restore Native Prairie Remove Non-Historic Trees	REGION Approved
HOME *1715*	37.00	NRPP - Small Parks	for Preserve Historic Trees	REGION Approved
HOME *1707*	81.00	NRPP - Small Parks	for Control Erosion / Flood Damage Mitigation	REGION Approved
HOME *1708*	100.00	NRPP - Small Parks	for Restore Native Prairie Edge Management	REGION Approved
HOME *1706*	146.00	NRPP - Small Parks	for Preserve Native/Restored Prairie Exotics Control	REGION Approved
HOME *1704*	178.00	NRPP - Small Parks	for Restore Native Prairie Freeman School Prairie	REGION Approved
HOME *1702*	9999.00	NRPP - Small Parks	for Restore Native Prairie Brome Eradication	REGION Approved
HOME *1716*	9999.00	NRPP - Small Parks	for Restore Woodlands Tornado Damage	REGION Approved
HOME *1709*	9999.00	NRPP - Small Parks	for Wildlife Baseline Inventory	DRAFT
HOME *1701*	9999.00	NRPP - Small Parks	for ZRAT Prairie Restoration Improvement	REGION Approved
HOME *1705*	9999.00	NRPP - Small Parks	for Restore Native Prairie Species Diversification	REGION Approved
HOME *1711*	9999.00	NRPP - Small Parks	for Invertebrate Baseline Inventory Entomology Collection	REGION Approved
HOME *1713*	9999.00	NRPP - Small Parks	for Cub Creek Hydrology Study	REGION Approved
HOME *1714*	9999.00	NRPP - Small Parks	for Air Quality Monitoring And Research	REGION Approved

214,000

Your search found projects with a total cost of **$ 18,989.00**

Cost of project is rounded to the nearest hundred.

Total cost of all projects is rounded to the nearest thousand.

Search Conditions:

Funding source not assigned , **Alpha Code** = 'HOME' ,**Target Funding Source** = Geographic Information System **ORDER BY** alphacode,regionpriority,targetfundingsource

Alpha Code	Regional Priority	Target Fund Source	Project Title	Review Level
HOME *54072*	999.90	Geographic Information System	for Construct GIS Layers for Infrastructure and Utilities	PARK Approved
HOME *7969*	9999.00	Geographic Information System	for Geographic Information System	REGION Approved
			19,000	

Your search found projects with a total cost of **$ 119,000.00**

Cost of project is rounded to the nearest hundred.

Total cost of all projects is rounded to the nearest thousand.

Search Conditions:

Funding source not assigned , **Alpha Code** = 'HOME' ,**Target Funding Source** = CRPP - Cultural Resources Preservation Program Base **ORDER BY** alphacode,regionpriority,targetfundingsource

Alpha Code	Regional Priority	Target Fund Source	Project Title		Review Level
HOME *50329*	999.90	CRPP - Cultural Resources Preservation Program Base	[illegible]	for Protect & Treat Museum Collection/Phase 2	DRAFT
HOME *7962*	9999.00	CRPP - Cultural Resources Preservation Program Base	[illegible] HISTORY	for PREPARE ADMINISTRATIVE	REGION Approved
HOME *36742*	9999.00	CRPP - Cultural Resources Preservation Program Base	[illegible] Guide	for Develop Structural Preservation	REGION Approved
				119,000	

Your search found projects with a total cost of **$ 5,000.00**

Cost of project is rounded to the nearest hundred.

Total cost of all projects is rounded to the nearest thousand.

Search Conditions:

Funding source not assigned , **Alpha Code** = 'HOME' ,**Target Funding Source** = CRPP - Historic Structures Stabilization **ORDER BY** alphacode,regionpriority,targetfundingsource

Alpha Code	Regional Priority	Target Fund Source	Project Title		Review Level
HOME *36690*	9999.00	CRPP - Historic Structures Stabilization		for Replace logs, Palmer-Epard Cabin	DRAFT
				5,000	

Your search found projects with a total cost of **$ 100,000.00**

Cost of project is rounded to the nearest hundred.

Total cost of all projects is rounded to the nearest thousand.

Search Conditions:

Funding source not assigned , **Alpha Code** = 'HOME' ,**Target Funding Source** = Museum Collections Preservation and Protection **ORDER BY** alphacode,regionpriority,targetfundingsource

Alpha Code	Regional Priority	Target Fund Source	Project Title		Review Level
HOME *50799*	999.90	Museum Collections Preservation and Protection	[illegible] Documents	for Update Museum Guidance	PARK Approved
HOME *36709*	9999.00	Museum Collections Preservation and Protection	[illegible]	for Document Museum Collection	REGION Approved
HOME *36723*	9999.00	Museum Collections Preservation and Protection	[illegible]	for Conserve Major Artifacts	REGION Approved
					100,000

RESOURCE MANAGEMENT PLAN

HOMESTEAD NATIONAL MONUMENT OF AMERICA

Recommended: _____ Date: 6/4/98
Superintendent
Homestead National Monument of America

Approved: _____ Date: 6/3/98
Regional Director, Midwest Region

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RESOURCE MANAGEMENT PLAN
HOMESTEAD NATIONAL MONUMENT

I. INTRODUCTION

Homestead National Monument, located in southeastern Nebraska, is the site of one of the first homesteads claimed in the United States under the Homestead Act of 1862. The Monument was established by an Act of Congress on March 19, 1936 (49 Stat.1184) to "... retain for posterity a proper memorial emblematical of the hardships and the pioneer life through which early settlers passed in the settlement, cultivation, and civilization of the great West." On September 25, 1970, Congress added the Freeman School parcel, to "further the interpretation and commemoration of the pioneer life of early settlers of the West."

The United States owns in fee the original 162.73-acre Freeman homestead and the 1.2-acre Freeman School parcel. Scenic easements totaling 18.18 acres protect the Freeman School viewshed north and west of the visitor center. Although located on Federal lands within the monument's boundary, the Nebraska Department of Roads operates and maintains the right-of-way for State Highway 4. This activity is authorized by a renewable special use permit. The original homestead now consists of approximately 100 acres of restored native tallgrass prairie, 60 acres of hardwood forest, and nearly 3 acres of buildings, roads and trails.

The Statement for Management (approved July 1988) identifies the following management objectives for natural and cultural resource management:

1. To identify, protect, preserve, and maintain the Monument's cultural resources in a manner consistent with historic preservation law, management policies, and the purpose for which the area was established.

2. To secure, through research or other means, adequate information on the Monument's cultural resources, natural resources, and visitor use patterns and preferences in order to develop the best possible management strategies.

3. To the degree possible, restore extirpated native species, and enhance the natural ecological diversity of the prairie ecosystem within the Monument.

4. To cooperate with other Federal, State, and local agencies; the community; private organizations and interests; and members of the public in:

    a) helping ensure that land uses in the Monument's vicinity are compatible with long-term perpetuation of park values;

    b) helping to ensure that recreational opportunities, visitor services, and public facilities in the Monument and its vicinity are complementary, and efficiently serve the needs of both visitors and regional residents;

c) restoring, preserving, and interpreting structures and sites of cultural significance.

The General Management Plan for Homestead National Monument identifies the following issues related to natural and cultural resource management:

1. Natural Resource Management concerns involve: 1) the preservation and enhancement of the tract of the Monument's restored tallgrass prairie including virgin prairie at the Freeman School; and, 2) flooding of Cub Creek and how to deter flood waters from damaging park resources and facilities.

2. Management is concerned that the restoration of native prairie remains proactive and that the latest scientific methods are employed.

3. The entire Monument is listed in the National Register of Historic Places. Management emphasis in the historic zone preserves, protects, and interprets cultural resources and their settings.

The Resource Management Plan presents an overview of the cultural and natural resource issues. The plan proposes alternatives for management in order to meet the general management objectives of Homestead National Monument and the National Park Service. Guidance for resource management is obtained from the Monument's enabling legislation, the 1964 Master Plan, the General Management Plan (1988), Statement for Management (1988), Resource Management Plan, Prairie Management Action Plan, Collection Management Plan, Collection Condition Survey, and related documents.

II. PRESENT RESOURCE STATUS

Natural Resource Baseline Data

The Monument does not possess data to meet the recommended level of natural resource information as outlined in NPS-75, Natural Resource Inventory and Monitoring Guideline, Appendix A. A vegetation study (Sutton 1984) provided the Monument with some base line data on prairie species composition. An herbarium was established with samples of most major prairie grass and forb species. A vegetation monitoring program, begun in 1992, has provided some composition data on the various prairie management units. An Inventory and Monitoring Plan is identified as a need to be completed by early FY94.

Baseline data has not been compiled for the woodlands area of the Monument. No baseline data is available on either air quality or the quality of ground water. Data on wildlife species is limited to census and observations by non-professional volunteers.

Natural Resources

Homestead National Monument is located on a quarter section (160 acres) of land near Beatrice, Nebraska. Approximately 100 acres of the Monument is composed of restored native tall grass prairie. The remaining area is forested except for

a small developed area containing the Visitor Center, a restored pioneer cabin, and several administrative buildings. A detached area, the Freeman School, contains approximately .75 acre of virgin native prairie. Another 1.2 acres adjacent to the Freeman School was acquired in 1992 and a portion of that area will be restored to native prairie.

The restored native prairie is one of the Monument's primary natural resources. The prairie is an integral part of the Homestead story and a primary focus of interpretive programs. The native prairie that once covered millions of acres has given way to farm and ranch land. There are few places today where the public can see and learn about this dwindling natural resource. The primary threats to the prairie unit are the invasion of smooth brome (Bromus inermis) and succession from prairie to woodlands. Maintenance of the restoration as a cultural landscape representation presents many new challenges with regard to the manipulation of ecosystem dynamics such as succession.

Deciduous forest covers approximately 64 acres of Homestead National Monument. Primary tree species include ash, oak, hackberry, elm, cottonwood, walnut, and dogwood.

Cub Creek, a tributary of the Big Blue River, meanders approximately 2-1/2 miles through the Monument. Fish known to live in Cub Creek include carp, channel catfish, and several species of sunfish and minnows.

Wildlife is relatively abundant in and around the Monument. Species known to inhabit or migrate through the Monument include white tail deer, beaver, muskrat, coyote, rabbits, and squirrels. Common reptiles and amphibians include garter snakes, bull snakes, tree frogs, and other common frogs and toads. Over 100 species of birds have been sighted within the Monument boundary. Pheasant and quail are common. Wild turkeys have been recently observed (1988).

Cultural Resource Baseline Information

Baseline information for cultural resources can be found in the following documents:

Plan/Document	**Date**	**Adequacy**
Historic Resources Study	1943	Needs updating
Museum Exhibits Plan	1960	Needs updating
Historic Furnishing Report Palmer-Epard Cabin	1968	Contains general information only
Historic Structures Report Palmer-Epard Cabin	1969	Scheduled for revision by MWRO
Historic Structures Report Freeman School	1973	Contains some inaccurate information
Historic Furnishing Report Freeman School	1973	Satisfactory

Interpretive Prospectus	1990	Satisfactory
Park Administrative History	1962 & 1982	Needs updating
Scope of Collection	1991	Satisfactory
Cultural Sites Inventory	1986	Satisfactory
Collection Management Plan	1987	Satisfactory
Collection Condition Survey	1989	Satisfactory

Cultural Resources

The Monument is on the National Register of Historic Sites and is considered a cultural site. The native tallgrass prairie is a restored historic scene considered to be a cultural resource and a natural resource. Begun in 1939, it is the oldest prairie restoration effort in the NPS and is, therefore, a historic resource in and of itself. A restored pioneer cabin, circa 1867,is a primary cultural resource and interpretive display. The Freeman School is another major cultural resource. The school, built in 1873, was added to the Monument by act of Congress in 1970 and restored by the NPS in 1978. Other cultural resources include four building sites occupied by the Freeman family, the Daniel and Agnes Freeman graves, a Daughters of the American Revolution Monument, and a hedge row of Osage Orange trees planted by Daniel Freeman.

The Monument houses a museum collection consisting of 3,974 objects. The collection contains cultural artifacts and natural history specimens. Most artifacts relate to the homestead period between 1862 and 1890. The collection includes household goods and furnishings, farm tools and implements, 19th century vehicles and machinery, clothing and personal accouterments, weapons, books and other archive material, school furnishings, an herbarium, and an entomology collection. Most archeological objects in the collection are housed at the Midwest Archeological Center in Lincoln, Nebraska.

Cultural Context/Theme

Cultural resources at Homestead National Monument can be viewed in the historical context of the western expansion of the United States from approximately 1860 until the U.S. Census Bureau declared the frontier closed in 1890. The Homestead Act in 1862 and its subsequent influence on the immigration and settlement of the western states is a primary theme represented at the Monument. The types of cultural resources represented at Homestead include a tallgrass prairie restored to represent the environment encountered by the pioneers; a typical pioneer cabin; a typical one-room school house; and a museum collection representing the many aspects of pioneer life in the late 19th century.

III. NATURAL AND CULTURAL RESOURCE MANAGEMENT PROGRAMS

Overview of Current Program and Needs

Natural Resources

One long-term management goal at Homestead National Monument has been to restore a portion of previously cultivated and disturbed land to the approximate appearance and species composition representative of the tallgrass prairie in the 19th century. Prairie restoration is a long-term process that is measured in decades and not years.

The upland prairie (covering approximately 60 acres) is in relatively good condition and will be managed through monitoring and maintenance actions that react to changing environmental situations. Prescribed fire, manual removal of exotic species, and selective use of herbicides may be used on a continuing basis to maintain the integrity of the restored prairie. The threat of erosion and the encroachment of exotic grasses and woody species will be monitored and documented. Species diversity and exotic species encroachment will be monitored using a standard species monitoring technique.

The 1984 vegetation study of the prairie identified several areas of critical concern. Moderate to severe resource degradation has occurred in these areas. The aesthetic quality of the visitor's experience is negatively affected by the degradation. Resource management actions in these areas are proactive. Techniques include: prescribed burning; seeding; sod transplanting; restoration of rare plant and extirpated species; and manual and chemical control of exotic species. Monitoring and research continue to be an integral part of prairie management. Specific prairie management actions are contained in the 10-Year Prairie Management Action Plan (1993), an addendum to this plan.

Other critical aspects of Homestead's natural resource management program include erosion control, wildlife management, air and water quality, managing the cultural landscape, and managing facilities for interpretation of the natural and cultural resources (trails and displays).

Some management projects involve research, data collection, and monitoring. Other actions involve maintaining existing conditions and continuing programs to restore native systems. Natural resource management projects are documented and data is compiled for entry into a Geographic Information System (GIS).

Cultural Resources

A long-term goal of cultural resource management is appropriate maintenance and preservation of the museum collection and historic structures. Another major goal is to manage the resources in a manner that provides maximum public access and high quality interpretation that inspires appreciation for the heritage preserved at Homestead.

The Collection Management Plan (1987) and Collection Condition Survey (1988) provide basic planning guidance for adequate care and maintenance of the museum collection. Park staff monitors environmental conditions, organizes records, and performs minor curatorial services on the collection. Many projects recommended in planning documents require expertise beyond the level of current park staff.

Proper long-term conservation and preservation of the museum collection require the attention of a professional museum curator. Funding requests have been submitted to accomplish these objectives.

An Historic Preservation Guide is needed to guide maintenance activities on the Freeman School and the restored pioneer cabin referred to as the Palmer-Epard Cabin. Historic preservation of structures is currently performed on a reactive basis. An Historic Preservation Guide was scheduled for completion in the Midwest Regional Office in 1987, but has been delayed.

Enhancing visitor appreciation and understanding of cultural and natural resources is a major management goal. Current information on the social characteristics of park visitors is limited to personal perceptions of the park staff. Accurate statistical data about visitor demographics, preferences, and perceptions is needed. Social science research will provide management with information necessary to make appropriate decisions concerning the interpretation and management of natural and cultural resources.

The approved General Management Plan (1988) calls for increased interpretation of the Freeman School and the addition of some interpretive displays in the museum. In addition, existing museum exhibits and the park audio visual programs all need updating.

Personnel

Currently, no full-time Park Ranger is assigned to natural resource management duties. One of the two full-time Park Rangers has in the past three years taken the lead in updating the Resource Management Plan, coordinating work with the Long Term Environmental Monitoring team, and developing groups within the park for on-going natural resource activities. One seasonal GS-5 Park Ranger has assisted with natural resource projects during the past three summers. Park Ranger positions must augment interpretive staff for visitor assistance and interpretive programming needs. The park has utilized two Student Conservation Association (SCA) volunteers during the past three years to accomplish routine resource management work, such as photo stations, macroinvertebrate sampling, and thicket reduction. Because of the extensive labor/man hours involved for prairie restoration and especially prairie maintenance, the current level of natural resource management staffing is inadequate to accomplish park objectives.

The full-time Chief of Operations position has responsibility for all supervisory, planning and managerial requirements of visitor services, visitor/resource protection, interpretation and maintenance, as well as natural and cultural resource management. Administrative aspects of supervision and division planning utilize the majority of this position's function.

In order for identified natural/cultural management objectives to be met and needs accomplished, the current park staffing level needs to be increased. A Resource Management Specialist is needed to direct staff in the specific requirements of natural and cultural resource management projects. A seasonal work crew of 3-4 persons is required to perform specific tasks related to prairie restoration/maintenance and monitoring. A Museum Technician (part-time or STF) is needed to assist with specific tasks related to collections management and care.

SERVICEWIDE NATURAL RESOURCES ISSUES

CODE

N01 Degradation of Park Resources Due to Native Animal Species Overpopulation

(Includes such problems as overpopulation of deer or beaver affecting park ecosystems or of urban grey squirrels affecting aesthetics and visitor health, may involve Integrated Pest Management plans.)

N02 Impacts on Threatened, Endangered, and Other Sensitive Animals

(Includes decline of native stocks, such as anadromous fish or protection of grizzly or data collection on rare wild turkey.)

N03 Impacts on Threatened, Endangered, and Other Sensitive Plants

(Includes studies to identify the presence of or distribution of these plants, mitigation of impacts of trampling to alpine meadow plants or protection of rare cacti from collectors.)

N04 Degradation of Park Resources Due to Non-Native Animals

(Includes impacts of introduced exotic species such as mountain goat in Olympic or predation of feral dogs and cats on native birds, or use of Integrated Pest Management plans to control gypsy moth.)

N05 Degradation of Park Resources Due to Non-Native Plants

(Includes control of exotic plants which have displaced native species, studies of better ways to control them.)

N06 Disruption of Native Plant Communities and Accelerated Erosion Due to Past Land Practices

(Includes restoration of native plant communities on old developed sites or agricultural lands, treatment of formerly mined areas to stop slope slumping or to revegetate.)

N07 Disruption of Natural Fire Regimes

(Includes research on fire history of an area, natural fire regimes, development of fire management plans for natural areas and implementation of prescribed burns.)

N08 Loss of Cultural Landscapes

(Includes development of vegetation management plans for historic zones, studies of suitability of native plant material for use in urban plantings or developed zones in rural parks.)

N09 Disruption of Natural Coastal Dynamics

(Includes studies of dredging impacts, plans to protect dunes and their vegetation from destruction by trampling or ORV use, mitigation of previous dune damage, studies of impact of sea level rise or current changes on park resources.)

N10 Disruption of Park Resources Due to Mineral Extraction and Geothermal Activities

(Includes impacts to park resources from mining or energy development activities carried out within the park under permit or impacts coming from outside development of mineral or energy sources. Should be used when there are broad general issues arising from energy or mineral development which cannot be more effectively described in another single issue category such as "Degradation of Park Water Quality" or "Air Pollution". Do not describe problems or activities in more than one issue category, but cross reference them.)

N11 Degradation of Park Water Quality Due to External Activities

(Includes adverse impacts to park water quality resulting from developments in the watershed outside of park boundaries, such as from industrial development, landfill leaching, housing development, roads, leaking sewer systems, run-off from agricultural fields, timbering, etc. Impacts from urbanization outside the park's boundaries and affecting many resources in addition to water quality should be described under "Urbanization and Other Near-Park Development." The issue of effects on thermal springs from geothermal development should be treated under "Mineral Extraction and Geothermal Activities".)

N12 Alteration of Natural Flow Regimes/Groundwater Levels

(Includes water level fluctuations in rivers or lakes which are dam-controlled, or where such control is proposed, alterations in spring flow or well discharge caused by in-park or external development or drilling of competing wells. Do not describe alterations in water quality here.)

N13 Lack of Secure Water Rights

(Includes inventory of park water location, flow amounts, levels, etc., needed to file for water rights and costs of adjudication of these rights.)

N14 Visibility Impairment and Biological Damage Caused by Air Pollution (includes wet and dry deposition)

(Includes studies of acid deposition and its effects on water, soils, plants, animals, or other park resources, research on ozone, monitoring of visibility characteristics, baseline data collection on air pollution, studies of effects of chemical components of air pollution on park plants or animals. Where air pollution effects are arising from a single energy or mineral development activity, they should be described under that issue.)

N15 Noise, Visual, and Biological Impacts Related to Aircraft Overflights

(Includes studies of visitor reactions to such noise, measurement of sound levels, measurement of background noise levels, research on effects on animals.)

N16 Visual and Biological Impacts of Urbanization and Other Near-Park Development on Park Resources

(Includes study of effects of near-park development on migratory populations of park animals, visual impacts of near-park development on park aesthetic qualities and the reactions of visitors to these changes, increased impacts on park vegetation from neighbors where boundaries are not clearly maintained.)

N17 Loss of Biological Diversity

(Research on effects of isolation of plants and animals on their ability to maintain their genetic diversity, studies of impacts of collecting or of transplanting animals or plants on genetic diversity.)

N18 Visitor Use Impacts on Backcountry Park Resources

(Includes illegal specimen collection, vegetation damage from ORV use (except where such is described under "Disruption of Natural Coastal Dynamics"), wildlife harassment, or poaching, loss of wilderness characteristics due to crowding. Where visitor impacts are felt on threatened or endangered plants or animals or caves the impacts should be described under those issues.)

N19 Loss of Park Resources Due to Consumptive Practices (hunting, fishing, commercial fishing, grazing)

(Issues of management of legal hunting and fishing such as proper seasons and limits, plans for management of park migratory wildlife which are hunted when outside the park, management of commercial fishing, management of permitted grazing, control of trespass grazing or studies of the effects of these activities. Management of subsistence uses where permitted.)

N20 Lack of Basic Data: Insufficient Understanding of Park Ecosystems and Threats to Them

(Includes need for baseline data, on-going monitoring, geographic information systems, etc., where these are needed for park ecosystems or communities on a broader scale than studies to deal with a limited subject such as the impact of increasing visitor use on a specific threatened species.)

N21 Loss of Fragile and Irreplaceable Cave Resources

(Impacts of uncontrolled use on unregulated caves, impacts of visitation and changes in air flow in developed caves, restoration of previous damage to developed caves. Study of water quality effects from upstream develop-ment should be treated under "Water Quality".)

N22 Overuse/Impacts to Recreation and/or Landscaped Zones

(Includes aesthetic impacts such as vandalism and graffiti, compaction of soils due to heavy use of areas such as campgrounds and picnic areas, tree and shrub damage from visitors trampling or breaking limbs.)

N23 Other Issue

(Use for other natural resources issues not described above.)

SERVICEWIDE CULTURAL RESOURCE ISSUES

DOCUMENTATION ISSUES	ISSUE CODE
Insufficient Planning Documents	C01
Insufficient Inventory Data	C02
Insufficient Required Studies and Reports	C03
Insufficient Specialized Studies for Unique or Complex Management Issues	C04
TREATMENT ISSUES	
Insufficient Maintenance Programs	C05
Erosion of Sites and Structures	C06
Insufficient Storage and Environmental Controls for Museum Collections	C07
Uncontrolled Vegetation Growth	C08
MONITORING ISSUES	
Insufficient Monitoring Programs	C09
PROTECTION ISSUES	
Looting and Vandalism	C10
OTHER CULTURAL RESOURCE ISSUES	
Insufficient Professional Staff	C11
Need for CRM-Related Training	C12
Other	C13

FUNDING SOURCE CODES

FUND SOURCECODE

Natural Resources

Park Base--Natural ResourcesNF1

Park Base--OtherNF2

Regional Base--Natural ResourcesNF3

Regional Base--OtherNF4

Fee RevenuesNF5

Natural Resources Preservation Program (NRPP)NF6

Servicewide Air QualityNF7

Servicewide Water ResourcesNF8

Fire ProgramNF9

Acid PrecipitationNF10

Other Servicewide NPS FundsNF11

Non-NPS FundsNF12

Cultural Resources

Park Base--Cultural ResourcesCF1

Park Base--OtherCF2

Regional Base--Cultural ResourcesCF3

Regional Base--OtherCF4

Cultural Resources Preservation Program (CRPP)CF5

Repair/Rehabilitation (R/R)CF6

Cultural CyclicCF7

Regular CyclicCF8

Fee RevenuesCF9

ConstructionCF10

Other Servicewide NPS FundsCF11

Non-NPS FundsCF12

02/19/98 PERSONNEL TABLE FY: 1997
15:01:48 (current year only) Park: HOME
Cluster: GPSO

TYPE OF NPS EMPLOYEE	FTEs OF RESOURCES WORK		
	Natural	Cultural	Total
Research Scientists	0.0	0.0	0.0
Resources Specialists	0.0	0.0	0.0
025 Park Rangers Res Mgmt	0.1	0.1	0.2
025 Park Rangers Res Prot	0.1	0.1	0.2
025 Park Rangers Res Interp	0.0	0.0	0.0
Maintenance Personnel	0.0	0.0	0.0
Total of RES Personnel	0.2	0.2	0.4
TOTAL PARK FTE: 10.0 PERCENT	2.0%	2.0%	4.0%

02/19/98 PERSONNEL TABLE FY: 1998
15:01:49 (current year only) Park: HOME
Cluster: GPSO

TYPE OF NPS EMPLOYEE	FTEs OF RESOURCES WORK		
	Natural	Cultural	Total
Research Scientists	0.0	0.0	0.0
Resources Specialists	0.0	0.0	0.0
025 Park Rangers Res Mgmt	0.0	0.0	0.0
025 Park Rangers Res Prot	0.0	0.0	0.0
025 Park Rangers Res Interp	0.5	0.5	1.0
Maintenance Personnel	0.0	0.0	0.0
Total of RES Personnel	0.5	0.5	1.0
TOTAL PARK FTE: 10.0 PERCENT	5.0%	5.0%	10.0%

Active Filter: (No filter)

Output Selections:
Year: Greater than or equal to 1993
Year: Less than or equal to 1998

02/19/98
15:01:46

PERSONNEL TABLE
(current year only)

FY: 1993
Park: HOME
Cluster: GPSO

TYPE OF NPS EMPLOYEE	FTEs OF RESOURCES WORK		
	Natural	Cultural	Total
Research Scientists	0.0	0.0	0.0
Resources Specialists	0.0	0.0	0.0
025 Park Rangers Res Mgmt	0.7	0.5	1.2
025 Park Rangers Res Prot	0.3	0.3	0.6
025 Park Rangers Res Interp	0.5	0.7	1.2
Maintenance Personnel	0.0	0.0	0.0
Total of RES Personnel	1.5	1.5	3.0
TOTAL PARK FTE: 8.3 PERCENT	18.1%	18.1%	36.1%

Active Filter: Tagged and (No filter)

Output Selections:
ed by: Priority + Resource Type
: All years
btotals

PRIORITY	PROJECT NUMBER	PROJECT TITLE	SUB-TITLE	FUNDED	UNFUNDED	PROP YEAR	LAST UPDATE
1	HOME-C-103.005	PRESERVE HISTORIC STRUCTURES	REPLACE SCHOOL SHUTTERS/	0.00	15.00	1993	02/01/98
2	HOME-C-101.002	REMOVE MUSEUM COLLECTIONS FROM FLOOD HAZARD ARE	ARCHIVES MANAGEMENT	0.00	205.00	1997	02/01/98
3	HOME-C-103.004	PRESERVE HISTORIC STRUCTURES	PAINT INTERIOR OF SCHOOL	0.00	8.00	1993	02/01/98
4	HOME-C-102.001	PRESERVE MUSEUM COLLECTION	ENVIRONMENTAL MONITORING	0.00	89.00	1993	02/09/98
5	HOME-C-103.001	PRESERVE HISTORIC STRUCTURES	STRUCT PRESERV GUIDE	0.00	30.00	1993	02/09/98
6	HOME-C-105.001	REPLACE ARTIFACTS IN PALMER-EPARD CABIN		0.00	10.00	1993	02/01/98
7	HOME-C-105.002	RENOVATE MUSEUM		0.00	1500.00	1993	02/01/98
8	HOME-C-100.001	CULTURAL RESOURCES MANAGEMENT	RESOURCE MGT POSITION	0.00	146.00	1997	02/01/98
9	HOME-C-104.002	HISTORIC FURNISHING REPORT FOR PALMER-EPARD CAB		0.00	45.00	1993	02/09/98
10	HOME-C-103.008	PRESERVE HISTORIC STRUCTURES	CHINK/WHITEWASH P-E CABI	0.00	4.00	1993	02/09/98
11	HOME-C-101.003	DOCUMENT MUSEUM COLLECTION	PHOTOGRAPH/APPRAISALS	1.00	20.00	1993	02/09/98
12	HOME-C-104.001	HISTORICAL RESEARCH		2.50	50.00	1993	03/01/97
13	HOME-C-102.002	PRESERVE MUSEUM COLLECTION	CONSERVE MAJOR ARTIFACTS	0.00	20.00	1993	02/01/98
14	HOME-C-104.003	UPDATE ADMINISTRATIVE HISTORY		0.00	20.00	1993	02/01/98
999	HOME-C-101.001	COLLECTIONS MANAGEMENT	RECORDS MANAGEMENT	25.00	8.00	1993	02/09/98
999	HOME-C-103.003	PRESERVE HISTORIC STRUCTURES	REPLACE LOGS, P-E CABIN	0.00	5.00	1993	02/01/98
999	HOME-C-103.006	PRESERVE HISTORIC STRUCTURES	SCHOOL TUCK PT. MORTAR	0.00	10.00	1993	03/01/97
999	HOME-C-103.007	PRESERVE HISTORIC STRUCTURES	SCHOOL HEATING SYSTEM	0.50	35.00	1993	02/09/98
999	HOME-C-103.009	PRESERVE HISTORIC STRUCTURES	PAINT EXT OF HS-07-08-09	0.00	2.00	1993	03/01/97

19 projects printed

Active Filter: Tagged and (No filter)

Output Selections:
Sorted by: Priority + Resource Type
: All years
btotals

8 PROJECT LIST Page: 0001
15:..:33

PRIORITY	PROJECT NUMBER	PROJECT TITLE	SUB-TITLE	FUNDED	UNFUNDED	PROP YEAR	LAST UPDATE
1	HOME-N-103.005	DESIGN AND REPLACE WATER LINES	PUBLIC HEALTH	5.00	275.00	1993	02/05/98
2	HOME-N-107.001	REHABILITATE AND MAINTAIN TRAIL SYSTEM	MAINTAIN TRAIL SYSTEM	1.00	49.00	1993	02/05/98
3	HOME-N-101.006	RESTORE WOODLANDS	TORNADO DAMAGE	0.00	7.00	1997	02/08/98
4	HOME-N-103.009	MONITOR AND CONTROL EROSION	FLOOD DAMAGE MITIGATION	0.00	40.00	1993	02/10/98
5	HOME-N-101.005	RESTORE NATIVE PRAIRIE	BROME ERADICATION	0.00	15.80	1997	02/08/98
6	HOME-N-102.002	PRESERVE NATIVE/RESTORED PRAIRIE	THICKET CONTROL	26.00	15.10	1993	02/08/98
7	HOME-N-103.001	MONITOR NATURAL RESOURCES	MONITORING PROGRAM	5.00	4.00	1993	02/08/98
8	HOME-N-102.001	PRESERVE NATIVE/RESTORED PRAIRIE	RX FIRE PROGRAM	12.60	16.60	1993	02/09/98
9	HOME-N-102.003	PRESERVE NATIVE/RESTORED PRAIRIE	EXOTICS CONTROL	0.20	10.30	1997	09/01/97
10	HOME-N-102.005	PRESERVE HISTORIC TREES		0.00	10.00	1993	09/01/97
11	HOME-N-101.001	RESTORE NATIVE PRAIRIE	FREEMAN SCHOOL PRAIRIE	3.00	18.00	1993	09/01/97
12	HOME-N-104.005	INVENTORY & STUDY DEER POPULATION		0.00	31.00	1998	04/19/98
13	HOME-N-104.004	UPDATE PRAIRIE VEGETATION INVENTORY	COMPLETE HERBARIUM	0.00	17.00	1993	02/08/98
14	HOME-N-104.003	DECIDUOUS FOREST BASELINE INVENTORY		0.00	21.00	1993	02/08/98
15	HOME-N-104.002	INVERTEBRATE BASELINE INVENTORY	ENTOMOLOGY COLLECTION	0.00	17.00	1993	02/08/98
16	HOME-N-104.001	WILDLIFE BASELINE INVENTORY		0.00	31.00	1993	02/08/98
17	HOME-N-106.001	CUB CREEK HYDROLOGY STUDY		0.00	20.00	1993	02/08/98
18	HOME-N-105.001	ESTABLISH GEOGRAPHIC INFORMATION SYSTEM		1.00	49.00	1993	02/08/98
19	HOME-N-101.004	RESTORE NATIVE PRAIRIE	REMOVE NON-HISTORIC TREE	1.00	13.90	1993	02/08/98
20	HOME-N-102.004	PRESERVE NATIVE/RESTORED PRAIRIE	CYCLIC HAYING	0.00	5.60	1997	02/08/98
21	HOME-N-101.002	RESTORE NATIVE PRAIRIE	EDGE MANAGEMENT	0.00	15.90	1993	02/08/98
22	HOME-N-101.003	RESTORE NATIVE PRAIRIE	SPECIES DIVERSIFICATION	0.00	11.30	1993	02/08/98
23	HOME-N-103.011	AIR QUALITY MONITORING AND RESEARCH		0.00	12.00	1993	02/08/98
24	HOME-N-108.000	CONSTRUCT FIRE EQUIPMENT BUILDING		0.00	216.99	1998	04/20/98
999	HOME-N-100.001	NATURAL RESOURCE MANAGEMENT	RESOURCE MANAGEMENT POSI	0.00	147.00	1997	02/08/98
999	HOME-N-103.002	MONITOR VISUAL QUALITY OF PRAIRIE	PHOTO STATIONS	3.20	0.00	1993	09/02/97
9	HOME-N-103.003	WILDLIFE MANAGEMENT	DOCUMENT OBSERVATIONS	0.80	0.00	1993	09/02/97
1	HOME-N-103.004	MONITOR SURFACE WATER QUALITY	CUB CREEK	8.00	0.00	1993	09/02/97
1	HOME-N-103.006	MONITOR AND CONTROL EROSION	FOOT BRIDGE AREA	1.00	0.00	1993	03/01/97
	HOME-N-103.007	MONITOR AND CONTROL EROSION	SOUTH BOUNDARY AREA	1.00	0.00	1993	03/01/97
9	HOME-N-103.008	MONITOR AND CONTROL EROSION	UPLAND PRAIRIE	0.00	0.00	1993	03/01/97
999	HOME-N-103.010	MONITOR METEROLOGICAL CONDITIONS		5.60	8.00	1993	03/01/97
999	HOME-N-107.002	MAINTAIN NATIVE PLANTS EXHIBIT		6.00	0.00	1993	09/02/97

33 projects printed

Active Filter: (No filter)

Output Selections:
Resource types included: CULTURAL
Initial fiscal year: 1998

04/20/98
15:31:45

UNFUNDED TABLE
CULTURAL
UNFUNDED AMOUNTS
($ in thousands - by funding type)

FY: 1998
Park: HOME
Cluster: GPSO

FUNDING TYPE	TOTAL	RES	MIT	MON	PRO	INT	ADM
Cyclic	29.00	0.00	24.00	5.00	0.00	0.00	0.00
Onetime	190.00	25.00	110.00	0.00	20.00	0.00	35.00
Recur.	35.00	0.00	35.00	0.00	0.00	0.00	0.00
TOTAL	254.00	25.00	169.00	5.00	20.00	0.00	35.00

Active Filter: (No filter)

Output Selections:
Resource types included: NATURAL
Initial fiscal year: 1998-2001

04/20/98
15:35:12

UNFUNDED TABLE
NATURAL
UNFUNDED AMOUNTS
($ in thousands - by funding type)

FY: 1998-2001
Park: HOME
Cluster: GPSO

FUNDING TYPE	TOTAL	RES	MIT	MON	PRO	INT	ADM
Onetime	841.49	139.39	427.00	67.00	0.00	6.50	201.60
Recur.	236.00	0.00	199.50	29.20	0.00	7.30	0.00
TOTAL	1077.49	139.39	626.50	96.20	0.00	13.80	201.60

Active Filter: (No filter)

Output Selections:
Resource types included: CULTURAL
al fiscal year: 1994
e projects only if funding data entered

02/19/98
15:00:35

PROGRAMMING SHEET 1
CULTURAL
FUNDED ACTIVITIES
($ in thousands)

FY: 1994
Park: HOME
Cluster: GPSO

PROJECT NUMBER	PROJECT TITLE	PKG NUM	CULT RES TYPE	SYSTEM-WIDE ISSUE	FUNDING SOURCE	ACT TYP	T Y P	CURRENT YEAR 1994 $$	CURRENT YEAR 1994 FTE	OUTYEAR 1 1995 $$	OUTYEAR 1 1995 FTE	OUTYEAR 2 1996 $$	OUTYEAR 2 1996 FTE	OUTYEAR 3 1997 $$	OUTYEAR 3 1997 FTE	TOTAL $$	TOTAL FTE
101.001 C	COLLECTIONS MANAGEMENT RECORDS MANAGEMENT	168	OBJC	C46 C81	CRPP	MIT	O	.00	.00	.00	.00	.00	.00	20.00	0.82	20.00	0.82
					TEMP$-CR	MIT	O	.00	.00	.00	.00	.00	.00	5.00	.00	5.00	0.00
					Subtotal			.00	.00	.00	.00	.00	.00	25.00	0.82	25.00	0.82
101.003 C	DOCUMENT MUSEUM COLLECTION PHOTOGRAPH/APP RAISALS		OBJC	C46 C72	VOL-INDEP	MIT	O	.00	.00	.00	.00	.00	.00	1.00	.00	1.00	0.00
	Project Total $$								0.00		0.00		0.00		26.00		26.00
	Project Total FTE								0.00		0.00		0.00		0.82		0.82
103.007 C	PRESERVE HISTORIC STRUCTURES SCHOOL HEATING SYSTEM	157	STRC	C13 C12	TEMP$-CR	MIT	O	.00	.00	.00	.00	.00	.00	0.50	0.05	0.50	0.05
1	HISTORICAL RESEARCH	136	COMB	C10	PKBASE-OT	RES	R	0.50	0.10	0.50	0.10	0.50	0.10	0.50	0.10	2.00	0.40
4 projects printed																	
	Grand Total $$								0.50		0.50		0.50		27.00		28.50
	Grand Total FTE								0.10		0.10		0.10		0.97		1.27

Active Filter: (No filter)

Output Selections:
Resource types included: NATURAL
Fiscal year: 1995
Include projects only if funding data entered

02/19/98
14:57:31

PROGRAMMING SHEET 1
NATURAL
FUNDED ACTIVITIES
($ in thousands)

FY: 1995
Park: HOME
Cluster: GPSO

PROJECT NUMBER	PROJECT TITLE	PKG NUM	CULT RES TYPE	SYSTEM-WIDE ISSUE	FUNDING SOURCE	ACT TYP	T Y P	CURRENT YEAR 1995 $$	CURRENT YEAR 1995 FTE	OUTYEAR 1 1996 $$	OUTYEAR 1 1996 FTE	OUTYEAR 2 1997 $$	OUTYEAR 2 1997 FTE	OUTYEAR 3 1998 $$	OUTYEAR 3 1998 FTE	TOTAL $$	TOTAL FTE
101.001 N	RESTORE NATIVE PRAIRIE FREEMAN SCHOOL PRAIRIE	146		N05 N17	PKBASE-NR	MIT	O	0.50	0.05	.00	.00	.00	.00	.00	.00	0.50	0.05
					PKBASE-NR	RES	O	0.50	0.05	.00	.00	.00	.00	.00	.00	0.50	0.05
					Subtotal			1.00	0.10	.00	.00	.00	.00	.00	.00	1.00	0.10
101.004 N	RESTORE NATIVE PRAIRIE REMOVE NON-HISTORIC TREES			N08 N06	TEMP$-NR	MIT	R	0.50	0.10	.00	.00	.00	.00	.00	.00	0.50	0.10
					Project Total $$				1.50		0.00		0.00		0.00		1.50
					Project Total FTE				0.20		0.00		0.00		0.00		0.20
102.001 N	PRESERVE NATIVE/RESTORED PRAIRIE RX FIRE PROGRAM			N07 N05	FIRE-$	MIT	O	.00	.00	1.50	.00	4.10	.00	5.00	.00	10.60	0.00
02 N	PRESERVE NATIVE/RESTORED PRAIRIE THICKET CONTROL	146		N06 N08	PKBASE-NR	MIT	R	1.00	0.10	0.50	0.05	0.50	0.05	2.00	0.10	4.00	0.30
					TEMP$-NR	MIT	O	5.00	.00	3.00	.00	.00	.00	.00	.00	8.00	0.00
					Subtotal			6.00	0.10	3.50	0.05	0.50	0.05	2.00	0.10	12.00	0.30
102.003 N	PRESERVE NATIVE/RESTORED PRAIRIE EXOTICS CONTROL	146		N05 N06	PKBASE-NR	MIT	R	.00	.00	.00	.00	0.20	0.05	.00	.00	0.20	0.05
					Project Total $$				6.00		5.00		4.80		7.00		22.80
					Project Total FTE				0.10		0.05		0.10		0.10		0.35
103.001 N	MONITOR NATURAL RESOURCES MONITORING PROGRAM			N20 N06	PKBASE-NR	MON	R	1.00	0.10	0.50	0.05	0.50	0.05	1.00	0.10	3.00	0.30
103.002 N	MONITOR VISUAL QUALITY OF PRAIRIE PHOTO STATIONS			N20 N06	PKBASE-NR	MON	R	0.50	0.05	0.20	0.02	0.50	0.05	1.00	0.10	2.20	0.22
103.003 N	WILDLIFE MANAGEMENT DOCUMENT OBSERVATIONS			N20	PKBASE-NR	MON	R	0.20	0.01	0.20	0.01	.00	.00	.00	.00	0.40	0.02

continued...

($ in thousands)

CTR	PROJECT TITLE	PKG NUM	CULT RES TYPE	SYSTEM-WIDE ISSUE	FUNDING SOURCE	ACT TYP	T Y P	CURRENT YEAR 1995 $$	CURRENT YEAR 1995 FTE	OUTYEAR 1 1996 $$	OUTYEAR 1 1996 FTE	OUTYEAR 2 1997 $$	OUTYEAR 2 1997 FTE	OUTYEAR 3 1998 $$	OUTYEAR 3 1998 FTE	TOTAL $$	TOTAL FTE
103.004	MONITOR			N20 N11	NRPP	MON	R	2.00	.00	2.00	.00	.00	.00	.00	.00	4.00	0.00
N	SURFACE WATER				PKBASE-NR	MON	R	0.50	0.10	0.50	0.10	0.50	0.05	.00	.00	1.50	0.25
	QUALITY																
	CUB CREEK				Subtotal			2.50	0.10	2.50	0.10	0.50	0.05	.00	.00	5.50	0.25
103.005	DESIGN AND			N11	PKBASE-NR	MON	R	1.00	0.10	1.00	0.10	1.00	0.10	.00	.00	3.00	0.30
N	REPLACE WATER																
	LINES																
	PUBLIC HEALTH																
103.006	MONITOR AND			N12	TEMP$-NR	MON	R	.00	.00	0.50	0.10	.00	.00	.00	.00	0.50	0.10
N	CONTROL																
	EROSION																
	FOOT BRIDGE																
	AREA																
103.007	MONITOR AND			N06 N12	TEMP$-NR	MIT	R	0.50	0.10	.00	.00	.00	.00	.00	.00	0.50	0.10
N	CONTROL																
	EROSION																
	SOUTH																
	BOUNDARY AREA																
103.010	MONITOR			N20 N07	PKBASE-NR	MON	R	0.70	0.10	0.70	0.10	0.70	0.10	0.70	0.10	2.80	0.40
N	METEROLOGICAL																
	CONDITIONS																
	Project Total $$								6.40		5.60		3.20		2.70		17.90
	Project Total FTE								0.56		0.48		0.35		0.30		1.69
01	REHABILITATE			N24	TEMP$-NR	MIT	R	.00	.00	1.00	0.10	.00	.00	.00	.00	1.00	0.10
	AND MAINTAIN																
	TRAIL SYSTEM																
	MAINTAIN																
	TRAIL SYSTEM																
107.002	MAINTAIN			N24	PKBASE-NR	MIT	R	1.00	0.10	1.00	0.10	1.00	0.10	1.00	0.10	4.00	0.40
N	NATIVE PLANTS																
	EXHIBIT																
	Project Total $$								1.00		2.00		1.00		1.00		5.00
	Project Total FTE								0.10		0.20		0.10		0.10		0.50
15 projects printed																	
	Grand Total $$								14.90		12.60		9.00		10.70		47.20
	Grand Total FTE								0.96		0.73		0.55		0.50		2.74

Active Filter: (No filter)

Output Selections:
Sorted by: Park + Resource Type
: All years
subtotal after change in Resource Type
rand total

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YEAR	PROJECT NUMBER	PROJECT TITLE	SUB-TITLE	FUNDED	FTE	TO DATE	PERCENT
1994	HOME-C-100.003	PRESERVE MUSEUM COLLECTION	ENVIRONMENTAL MONITORING	1.00	0.10	2.00	0
1997	HOME-C-101.001	COLLECTIONS MANAGEMENT	RECORDS MANAGEMENT	25.00	0.82	25.00	0
1997	HOME-C-101.003	DOCUMENT MUSEUM COLLECTION	PHOTOGRAPH/APPRAISALS	1.00	0.00	1.00	0
1997	HOME-C-103.007	PRESERVE HISTORIC STRUCTURES	SCHOOL HEATING SYSTEM	0.50	0.05	0.50	0
1997	HOME-C-104.001	HISTORICAL RESEARCH		0.50	0.10	2.50	0
1994	HOME-C-110.000	CURATORIAL MANAGEMENT AND RECORDS ORGANIZATION		1.00	0.10	2.00	0
1994	HOME-C-300.000	HISTORICAL RESEARCH		0.50	0.10	1.00	0
Resource Type Sub-total----------				29.50	1.27	34.00	
1994	HOME-I-120.000	MONITOR VISITOR INFORMATION		0.50	0.10	1.00	0
Resource Type Sub-total----------				0.50	0.10	1.00	
1994	HOME-N-100.001	RESTORE NATIVE PRAIRIE	PRESCRIBED FIRE PROGRAM	1.00	0.10	2.00	0
1994	HOME-N-100.002	RESTORE NATIVE PRAIRIE	CONTROL EXOTICS/THICKETS	2.00	0.10	4.00	0
1994	HOME-N-100.003	RESTORE NATIVE PRAIRIE	SOD TRANSPLANT	2.50	0.20	7.00	0
1994	HOME-N-100.004	RESTORE NATIVE PRAIRIE	REMOVE NON-HISTORIC TREE	1.00	0.10	2.00	0
1994	HOME-N-100.005	RESTORE NATIVE PRAIRIE	FREEMAN SCHOOL PRAIRIE	1.00	0.10	2.00	0
1994	HOME-N-100.006	RESTORE NATIVE PRAIRIE	MONITORING PROGRAM	1.00	0.10	2.00	0
1994	HOME-N-100.011	RESTORE NATIVE PRAIRIE	SEEDING NATIVE SPECIES	1.00	0.10	2.00	0
1997	HOME-N-102.001	PRESERVE NATIVE/RESTORED PRAIRIE	RX FIRE PROGRAM	4.10	0.00	7.60	0
1997	HOME-N-102.002	PRESERVE NATIVE/RESTORED PRAIRIE	THICKET CONTROL	0.50	0.05	18.00	0
1997	HOME-N-102.003	PRESERVE NATIVE/RESTORED PRAIRIE	EXOTICS CONTROL	0.20	0.05	0.20	0
1997	HOME-N-103.001	MONITOR NATURAL RESOURCES	MONITORING PROGRAM	0.50	0.05	4.00	0
1997	HOME-N-103.002	MONITOR VISUAL QUALITY OF PRAIRIE	PHOTO STATIONS	0.50	0.05	2.20	0
1997	HOME-N-103.004	MONITOR SURFACE WATER QUALITY	CUB CREEK	0.50	0.05	8.00	0
	HOME-N-103.005	DESIGN AND REPLACE WATER LINES	PUBLIC HEALTH	1.00	0.10	5.00	0
	OME-N-103.010	MONITOR METEROLOGICAL CONDITIONS		0.70	0.10	3.50	0
	ME-N-107.002	MAINTAIN NATIVE PLANTS EXHIBIT		1.00	0.10	5.00	0
	ME-N-110.000	ESTABLISH GEOGRAPHIC INFORMATION SYSTEM		0.50	0.10	1.00	0
19	OME-N-120.000	MONITOR VISUAL QUALITY OF PRAIRIE		1.00	0.10	2.00	0
1994	HOME-N-200.002	WILDLIFE MANAGEMENT	DOCUMENT OBSERVATIONS	0.20	0.10	0.40	0
1994	HOME-N-300.001	WATER QUALITY AND HYDROLOGY	MONITOR FOR PUBLIC HEALT	1.00	0.10	2.00	0
1994	HOME-N-300.002	WATER QUALITY AND HYDROLOGY	MONITOR CUB CREEK	1.00	0.10	4.00	0
1994	HOME-N-400.001	MONITOR AND CONTROL EROSION	CONTROL - FOOT BRIDGE	0.50	0.10	0.50	0
1994	HOME-N-510.000	MONITOR METEROLOGICAL CONDITIONS		0.70	0.10	1.40	0
1994	HOME-N-600.000	PRESERVE HISTORIC TREES		0.40	0.10	0.80	0
1994	HOME-N-800.001	REHABILITATE AND MAINTAIN TRAIL SYSTEM	MAINTAIN TRAIL SYSTEM	1.00	0.10	2.00	0
1994	HOME-N-800.003	REHABILITATE AND MAINTAIN TRAIL SYSTEM	MAINTAIN PLANTS DISPLAY	1.00	0.10	2.00	0
Resource Type Sub-total----------				25.80	2.35	90.60	
Grand Total==========				55.80	3.72	125.60	

34 projects printed

Title : CULTURAL RESOURCES MANAGEMENT
Sub-title: RESOURCE MGT POSITION

Funding Status: Funded: 0.00 Unfunded: 146.00

Servicewide Issues : C83 (GEN CR MNGT)
C46 (ACCOUNTBLY)
Cultural Resource Type: COMB (Combination)
N-RMAP Program codes :

10-238 Package Number :

Problem Statement

The collection contains approximately 5,500 objects, housed within the park plus another 12,000 objects held at the Midwest Archeological Center in Lincoln. The objects include a variety of historical artifacts and large implements, archeological findings, ethnographic objects, art works, photographs and other unclassified archival materials, and natural history specimens. A Scope of Collections Statement (1985), Collections Management Plan (1987), and Collection Condition Survey (1988) have been completed, all indicating the need for professional care and management of the collection. Implementation of the recommendations in these documents is not feasible with current limited staffing and funding levels.

Collections management is currently a collateral duty for an interpretive ranger position with no cultural resource education or training requirements. In addition, there is no trained staff member to manage the care of two historic structures in the park. Care and management of park collections and historic structures receives minimal attention under the current staffing situation. Many projects for protection and accountability of cultural resources remain undone from year to year.

Description of Recommended Project or Activity

This project supports the recommendation of the Collections Condition Survey and other documents for a permanent, full-time, professional resource management staff member whose mitigation and accountability responsibilities for cultural resources would include: environmental monitoring of collections and exhibit areas, and historic structures; 106 compliance; Integrated Pest Management; accessions/cataloging/records management; photographic documentation and monitoring; loan and deaccessioning management; cleaning/routine conservation of objects and structures; contracting of major conservation and preservation projects.

Unfunded staff position descriptions have been approved for either a Historian/Cultural Resource Manager or a GS-401 Natural/Cultural Resource Manager. This project would provide the funding for one of these positions. The more realistic alternative for a park this size would be one resource management specialist who oversees both natural and cultural programs, supervising seasonal, SCA or volunteer staff as available to accomplish objectives of both programs (see also Project N-100.001).

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	Recurring	35.00	1.00
Year 2:	MIT	Recurring	36.00	1.00
Year 3:	MIT	Recurring	37.00	1.00
Year 4:	MIT	Recurring	38.00	1.00
		Total:	146.00	4.00

(Optional) Alternative Actions/Solutions and Impacts

Contract Services: In the absence of a full-time staff Resource Management Specialist, several necessary cultural resource projects and duties which could otherwise be accomplished and/or supervised by that individual would need to be contracted out (see Project Statements HOME-C-101.001, 101.002, 102.001, 103.001, 104.001, 104.002, 104.003).

No Action: Without adequate, trained staff support for cultural resources management, park collections and historic structures are at much greater risk of deterioration, pest infestation, loss or encroachment. Accountability documentation will continue to be inadequate. Conservation, preservation and monitoring of objects and structures will continue to be delayed, haphazard or not accomplished. Research to substantiate and support collections care and use will remain undone.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : COLLECTIONS MANAGEMENT
Sub-title: RECORDS MANAGEMENT

Funding Status: Funded: 25.00 Unfunded: 8.00

Servicewide Issues : C46 (ACCOUNTBLY)
C81 (COLLECTIONS)
Cultural Resource Type: OBJC (Object)
N-RMAP Program codes :

10-238 Package Number : 168

Problem Statement

Collection data needs to be entered into the Automated National Catalog System (ANCS). New accessions need to be properly documented, classified and entered into the ANCS. Park personnel do not have the expertise and are not able to devote the amount of time necessary to complete records entry in a timely manner. Record searches are more time consuming than necessary because they are not recorded into the system, delaying retreival of information for management purposes, loan and donor requests. Until cataloging and accessioning are up-to-date, the park is not in compliance with NPS regulations and policies which mandate collections accountability.

Considerable progress was made on the ANCS backlog catalog during the summer of 1997, with cultural resource funding of $20,000, plus another Challenge Cost Share grant of $5,000. This enabled the park to hire two Museum Aids to devote their time to the backlog and to select two Student Conservation Associates (SCA) to assist with cataloging and cultural resource projects. Over 2,000 entries were completed on the backlog and all of the prior catalog entries were edited. New "blues" were printed for the entire collection by the ANCS department at Harpers Ferry, WV.

Approximately 750 archival photographs still remain uncataloged in the park collection. These will be completed when sufficient funding and staff are available.

Description of Recommended Project or Activity

This project proposes a temporary position devoted to completing catalog data entry, backlog accessioning, and ensuring that all records are complete and up to date.

With the hiring of two Museum Aids in 1997, a substantial portion of this work was accomplished in completing over 2,000 records in ANCS on the backlog catalog. However, over 750 archival

photographs still need to be cataloged.

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED					
1997:	CRPP	MIT	One-time	20.00	0.82
	TEMP$-CR	MIT	One-time	5.00	0.00
			Subtotal:	25.00	0.82
			Total:	25.00	0.82
UNFUNDED					
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 4:		MIT	Recurring	8.00	0.30
			Total:	8.00	0.30

(Optional) Alternative Actions/Solutions and Impacts

No Action: Park staff are unable to devote the necessary amount of time to automating catalog records due to other, more immediate duties. Without completion of this project, record retrieval will continue to be a slow process making it difficult to obtain meaningful data for management purposes. The park will remain in non-compliance with NPS policies which mandate collections accountability.

Alternative Action: Cultural Resource funding in the amount of $20,000 resulted in the hiring of two Museum Aids in 1997 who cataloged and edited over 2,000 entries in ANCS.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : REMOVE MUSEUM COLLECTIONS FROM FLOOD HAZARD AREA
Sub-title: ARCHIVES MANAGEMENT

Funding Status: Funded: 0.00 Unfunded: 205.00

Servicewide Issues : C46 (ACCOUNTBLY)
C81 (COLLECTIONS)
Cultural Resource Type: OBJC (Object)
N-RMAP Program codes :

10-238 Package Number : B

Problem Statement

The Visitor Center complex which includes the museum collection storage area and museum exhibits is located within the "Special Flood Hazard Area." The potential loss through flooding is an imminent threat and would result in the loss of the museum collection. These collections are critical to the purpose for which this unit was created. The Prototype Artifact Storage Plan would be used for this project.

The park collection contains a large number of items which should be reclassified, recataloged and managed as archival materials. These items include photographs, articles, letters, diaries and many other records which are primary source documents pertaining to the Freeman homestead, the Homestead Act and park history. These items are currently very difficult to access for reference and research. They are also among the most sensitive objects in the collection in terms of proper care and storage. In addition, many records of historical value to the history of the park, site development and the historic prairie restoration are not included in the collection and are stored or filed in a variety of locations throughout the park. These important materials need to be surveyed and accessioned into the park collection as critical archival materials, before they are lost, damaged or destroyed. An archival accessions, use, storage and care policy needs to be developed.

Description of Recommended Project or Activity

In the absence of a full-time staff Resource Management Specialist, the establishment of a park archives collection will need to be done by contract. This project proposes a one-year term contract with a museum professional who will survey materials within the park, including materials already in the park museum collection, for appropriateness as archival materials. The individual will draft an Archival Collections Policy, using appropriate NPS guidelines, authorities and

references. The individual will accession and catalog or recatalog items into the archival collection. The individual will arrange and organize the collection, create indexes and finding aids, and recommend procedures for access, use and care of archival materials. The contract will include procurement of basic supplies/materials needed to establish and store an archival collection.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	30.00	0.00
Year 2:	MIT	Cyclic	175.00	0.00
		Total:	205.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

Contract Services (this project statement): In the absence of a staff resource management specialist, the function of establishing a park archival collection would be accomplished by contract. This would provide for initial identification, documentation and protection of archival-quality records and materials in the park before any further loss or damage of these items results. It would also provide for establishment of a park policy for management and use of archival meterials.

Staff Resource Management Specialist: Ideally, the establishment of a park archival collection would be best accomplished by a park staff specialist who would be most familiar with park history, who could most effectively locate and identify materials appropriate for archival status, and continue the work of archival collections care and records management after the initial establishment of the collection.

No Action: Failure to establish a park archival collection will result in continued loss and/or damage to important records, documents, photographs and other media. It will continue to be difficult to locate, access and utilize these records for park management, research and interpretive needs. Park accountability for historical records will be in non-compliance with policies

and guidelines for documentation and preservation of these materials.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 02/09/98
Initial Proposal: 1993

Title : DOCUMENT MUSEUM COLLECTION
Sub-title: PHOTOGRAPH/APPRAISALS

Funding Status: Funded: 1.00 Unfunded: 20.00

Servicewide Issues : C46 (ACCOUNTBLY)
C72 (PROTECTION)
Cultural Resource Type: OBJC (Object)
N-RMAP Program codes :

10-238 Package Number :

Problem Statement

All historic objects in the collection and on exhibit require professional appraisal to determine their market value. Values listed on catalog records (which were estimates made at the time of acquisition of most objects in the 1960's and 70's) are grossly under-estimated and out-dated. Museum objects also need to be photographed for security purposes. No photo documentation of the collection exists. In the event of theft, fire or water damage, or other loss of collection objects, the current catalog documentation alone would be insufficient for tracking or replacing objects, or estimating value of loss. This is especially critical considering that the collection storage facility within the Visitor Center is located in the 50-100 year flood plain of Cub Creek, making water damage to the collection an ever-present possibility.

Description of Recommended Project or Activity

In the event that a permanent Resource Management Specialist would be hired as a full-time staff position (see Project Statement HOME-C-101.001), the photography and apraisal of collection objects could be project work over a period of time for that professional individual. Since that staff position is not currently realistic within park base funding, this project proposes contracting these collection security and accountability needs to an outside professional as soon as funding can be secured.

During 1997, the park was able to enlist the volunteer services of the staff photographer from the Statue of Liberty who worked as a Volunteer-in-Parks at HOME for two weeks. The park paid for his transportation, meals, and photographic supplies. He photographed and documented all of the artifacts on display. Contact sheet prints were developed from photographs that he took of an additional one-fourth of the collection housed in the park. These photos are of unique and irrecplaceable artifacts.

Last Update: 02/09/98
Initial Proposal: 1993

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1997:	VOL-INDEP	MIT	One-time	1.00	0.00
			Total:	1.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	PRO	One-time	20.00	0.00
		Total:	20.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

Contract Services: This alternative would provide the most expedient way to attain necessary security and accountability documentation of the park's collection.

Staff Resource Management Specialist: This alternative would provide a cost-effective, long-term method for documenting the park collection. However, the park would continue to have inadequate security and accountability documentation of objects over the long-term as the project was being completed.

Volunteer Services: This alternative was utilized in the park during the summer of 1997, resulting in the documention of approximately one-fourth of the collection. This was photographed by a volunteer who donated two weeks of his time on this project. The park spent $1,000 from its annual Volunteers-in-Parks budget toward this accomplishment.

No Action: Failure to photograph and appraise collection objects puts the park at risk of non-compliance with protection and security standards for museum resources.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 02/09/98
Initial Proposal: 1993

Title : PRESERVE MUSEUM COLLECTION
Sub-title: ENVIRONMENTAL MONITORING

Funding Status: Funded: 0.00 Unfunded: 89.00

Servicewide Issues : C49 (ENVIRONMNT)
C81 (COLLECTIONS)
Cultural Resource Type: COMB (Combination)
N-RMAP Program codes :

10-238 Package Number : 219

Problem Statement

Upon review by professionals, the present furnace system is not adequate for the overload created when the visitor center complex was enlarged and modified in 1991. Humidity levels in the visitor center exhibit room fluctuate widely outside the acceptaable range for artifact preservation. Attempted solutions using portable humidifiers has not been successful due to the size of the room. A replacement system will reduce energy costs and provide a healthy, temperature moderated environment.

Museum collection objects are stored or exhibited in a variety of structures at Homestead. Environmental conditions fluctuate dramatically in historic structures which are not climate controlled, resulting in possible damage or deterioration of objects and structures. Environmental factors need to be monitored in order to determine acceptable levels of change and risk to objects and structures. This data is also needed to justify attempts to provide climate and light controlled environments and determine the necessary requirements of environmental control systems.

The small park staff attempts to monitor temperature and relative humidity through the use of hygrothermographs placed in the museum, implement shed, and collections storage area, and Smart Reader data loggers placed in the Palmer-Epard Cabin and the Freeman School. However, due to the lack of a professional, full-time Resource Management Specialist on staff, these duties are often deferred to other priorities. Hygrothermograph charts are not changed on a weekly basis as needed, and staff members are not trained to do the periodic calibration necessary. Park staff members are also not trained to interpret data which they do collect for use in management planning and decision making, and determining risk to objects and structures. Light levels are infrequently monitored.

Description of Recommended Project or Activity

Replace environmental control systems in the Visitor Center complex. Design and install systems and duct work for heating, cooling, and humidifying museum areas, public use areas, and offices.

In the event, that a full-time Resource Management Specialist is added to the park staff, these environmental monitoring duties would be performed by that individual. Since such a position is not currently funded, this project recommends the use of contracted professionals to make semi-annual evaluations of environmental data collected by data loggers in each location where objects are stored or on exhibit, which will also include the historic structures in the park. The contracted individual would place, maintain, and program data loggers, and retrieve, archive and evaluate data collected twice annually. A written report would be provided to park management which included any recommendations based on the interpretation of the data for changes in management and protective actions for objects and structures. Light levels would also be monitored during these evaluation sessions and recommendations made in the report. A one-time cost for the purchase of additional data loggers and software is included in this project.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	Cyclic	5.00	0.00
Year 2:	MON	Cyclic	2.00	0.00
Year 3:	MON	Cyclic	2.00	0.00
Year 4:	MON	One-time	80.00	0.00
		Total:	89.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

Contract Services: In the absence of a staff Resource Management Specialist, this alternative would provide for a minimum monitoring program to fulfill collection management/care requirements.

Staff Resource Management Specialist: This alternative would provide the most responsible and cost-effective, long-term method for monitoring park collections and historic structures. Continuous monitoring by an on-site professional would provide for immediate notice and response to extreme fluctuations in environmental conditions caused by unusual climatic circumstances or malfunctions in environmental control systems. Adverse situations could be recognized and mitigated without delaying until the next visit of a contracted service provider. Administrative time/costs of contracting would be eliminated with this option.

No Action: Without adequate environmental monitoring park management will be unable to determine the effectiveness of environmental control systems and adjustments that may need to be made to the systems. If monitoring does not occur, and the environmental control system fails, irrepairable damage may occur to the collection. In areas where no environmental control is currently provided, there would not be sufficient data to determine risk or levels of acceptable change to objects and historic structures. The needs and parameters for providing environmental control would be unverifiable.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : PRESERVE MUSEUM COLLECTION
Sub-title: CONSERVE MAJOR ARTIFACTS

Funding Status: Funded: 0.00 Unfunded: 20.00

Servicewide Issues : C48 (TREATMENT)
Cultural Resource Type: OBJC (Object)
N-RMAP Program codes :

10-238 Package Number : 220

Problem Statement

A collection condition survey was completed for Homestead in 1988. In this survey, ten (10) large objects were identified as high priority for conservation work. In 1995 and 1996, park staff members were trained and provided minimal cleaning conservation treatments to these objects. Professional level, detailed conservation of these objects for long-term preservation still needs to be performed.

Description of Recommended Project or Activity

The 10 large objects identified as high priority for conservation work in the 1988 Collection Condition Survey will receive the necessary treatment for preservation. A conservator will be contracted to perform the necessary treatment.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	20.00	0.00
		Total:	20.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: Without professional conservation treatment, these objects will continue to deteriorate. Park staff do not have the expertise required to perform the necessary conservation work.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : PRESERVE HISTORIC STRUCTURES
Sub-title: STRUCT PRESERV GUIDE

Funding Status: Funded: 0.00 Unfunded: 30.00

Servicewide Issues : C55 (MAINTENANCE)
C56 (REHAB, ETC.)
Cultural Resource Type: STRC (Structure)
N-RMAP Program codes :

10-238 Package Number : 221

Problem Statement

There are two major historic structures at Homestead. The Palmer-Epard cabin and Freeman School are well known symbols of Homestead in the surrounding community. Lack of climate control in these structures makes environmental degradation of interior and exterior building components a continuing threat and problem. There are also eight other associated structures which are on the List of Classified Structures for the park.

The park staff does not have a comprehensive guide for preservation and maintenance of historic structures. Deterioration may be occuring for which park staff do not have any training or guidelines to be able to recognize potential problems and prescribe action before significant damage and loss may result. Maintenance and preservation of historic structures is often conducted on a reactive basis. Planned historic maintenance and preservation guidelines specific to these structures are required to ensure their long-term care.

A 10-238 package for this project was approved in 1986, funded, and scheduled to be completed in 1987. However, the project was never accomplished and management of historic structures continues to be a reactive process.

Description of Recommended Project or Activity

A comprehensive guide for use in managing and preserving the park's historic structures will be contracted to a historic preservation specialist. The guide will combine general aspects of NPS Management Policies and specific professional expertise in historic structures maintenance and preservation to arrive at a single, concise, prescriptive document which will direct the day to day activities of the park staff in maintaining and managing the historic structures at Homestead National Monument. The completed guide will ensure that management activities follow professionally developed concepts and eliminate reactive historic

structure maintenance.

Upon completion of the guide, RMP project statements which deal with structures preservation will be updated or rewritten to reflect the new guidelines for maintenance and care.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	15.00	0.00
Year 4:	MIT	One-time	15.00	0.00
		Total:	30.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: Failure to provide effective and properly timed preservation and maintenance for historic structures will lead to irrepairable degradation. The park will be in non-compliance with NPS and federally mandated preservation guidelines and authorities.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : PRESERVE HISTORIC STRUCTURES
Sub-title: REPLACE LOGS, P-E CABIN

Funding Status: Funded: 0.00 Unfunded: 5.00

Servicewide Issues : C12 (ICAP)
Cultural Resource Type: STRC (Structure)
N-RMAP Program codes :

10-238 Package Number :

Problem Statement

Base logs in the historic Palmer-Epard Cabin have periodically decayed because of contact with the ground and exposure to the elements. Logs in the cabin need periodic replacement.

Description of Recommended Project or Activity

Park personnel will periodically inspect logs of the Palmer-Epard cabin to detect deterioration and recommend replacement. A detailed inspection process will be formulated and will be contained in a Historic Preservation Guide (see HOME-C-200.008).

When log deterioration reaches the point where logs must be replaced, park staff will follow procedures documented from past replacement activities to guide them in the replacement process. All log replacement activities will continue to be thoroughly documented to serve as a guide for future activities.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	Cyclic	5.00	0.20
		Total:	5.00	0.20

(Optional) Alternative Actions/Solutions and Impacts

No Action: Failure to inspect the structure properly could lead to irreversable damage to this historic structure. Failure to replace deteriorated logs will lead to a more rapid deterioration of adjacent logs and eventual destruction of the building.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement

HOME-C-103.004
Priority: 3
Page Num: 0020

Last Update: 02/01/98
Initial Proposal: 1993

Title : PRESERVE HISTORIC STRUCTURES
Sub-title: PAINT INTERIOR OF SCHOOL

Funding Status: Funded: 0.00 Unfunded: 8.00

Servicewide Issues : C12 (ICAP)
Cultural Resource Type: STRC (Structure)
N-RMAP Program codes :

10-238 Package Number : 195

Problem Statement

The interior of the historic Freeman School requires painting on a cyclic basis. No guide exists to determine the frequency with which this action should occur. Interior painting of the structure when it is determined locally that it needs to be repainted. There is no identified cyclic maintenance program for this activity.

Description of Recommended Project or Activity

The Historic Preservation Guide identified in project number HOME-C-200.008 will be utilized to provide cyclic maintenance for repainting of the interior of the structure. The guide will include timing of activities and will identify type and color of paint to be used. Until the guide is completed, park staff will repaint the interior of the structure when necessary, determining as close as possible the type and color of paint to be utilized.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	Cyclic	3.00	0.10
Year 4:	MIT	Cyclic	5.00	0.00
		Total:	8.00	0.10

(Optional) Alternative Actions/Solutions and Impacts

No Action: Without a cyclic maintenance program for the interior of the Freeman School, historic accuracy for interpretation of the structure cannot be achieved. Inaccuracies in presenting the structure to the public is contrary to the Service's mission.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement

HOME-C-103.005
Priority: 1
Page Num: 0022

Last Update: 02/01/98
Initial Proposal: 1993

Title : PRESERVE HISTORIC STRUCTURES
Sub-title: REPLACE SCHOOL SHUTTERS/W

Funding Status: Funded: 0.00 Unfunded: 15.00

Servicewide Issues : C13 (EMERG STABL)
Cultural Resource Type: STRC (Structure)
N-RMAP Program codes :

10-238 Package Number : 139

Problem Statement

The shutters on the windows of the Freeman School were damaged during the tornado of May, 1996. The shutters on the west side of the building need slats replaced, hinges replaced, and support mounts repaired. Shutters on the entire building need to be thoroughly cleaned and repainted.

The windows in the front of the Freeman School are not of the configuration identified in early photographs (circa 1902) of the building. Historic photographs of the Freeman School show each half window of the structure as having six panes of glass rather than the two panes as currently exists. The twopane/half windows are more typical of the 1930-1940 era rather than the turn of the century period depicted by the interior furnishings and which we seek to interpret.

Description of Recommended Project or Activity

Shutters will be removed from the building, damaged slats will be replaced with historically accurate materials, and all broken hardware will be replaced with authentic replicas. All shutters on the Freeman School will be repainted according to historic accuracy, and properly rehung on the building.

Historic photographs will be examined to determine specifications for construction of desired windows. Construction will be performed by a contracted carpenter. The window frames and sashes will be reworked to replace the non-historic two glass pane per half windows with historically accurate six glass pane per half windows. A total of seven windows will be completed by this contract.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 4:	MIT	One-time	15.00	0.00
		Total:	15.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: If this project is not completed, historic representation will be inaccurate. The shutters will continue to deteriorate and eventually fall off the window frames. Preservation of the building will not meet historic preservation standards. Our efforts to accurately interpret the Freeman School and its functions will be hampered by non-historic representation of the structure.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement

Last Update: 03/01/97
Initial Proposal: 1993

Title : PRESERVE HISTORIC STRUCTURES
Sub-title: SCHOOL TUCK PT. MORTAR

Funding Status: Funded: 0.00 Unfunded: 10.00

Servicewide Issues : C12 (ICAP)
C13 (EMERG STABL)
Cultural Resource Type: STRC (Structure)
N-RMAP Program codes :

10-238 Package Number : 181

Problem Statement

The tuck pointing at the Freeman School has weathered and faded. The mortar on recently replaced bricks does not match other mortar in the building. Tuck pointing is needed to improve the appearance of the school building.

Description of Recommended Project or Activity

This package will be a contract to tuckpoint the Freeman School. The appearance of the building will be uniform which will provide historic integrity to the structure.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	Cyclic	10.00	0.40
		Total:	10.00	0.40

(Optional) Alternative Actions/Solutions and Impacts

No Action: If this package is not completed, the Freeman School will continue to have a poor appearance and reflect a lack of concern for the historic value of the structure.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : PRESERVE HISTORIC STRUCTURES
Sub-title: SCHOOL HEATING SYSTEM

Funding Status: Funded: 0.50 Unfunded: 35.00

Servicewide Issues : C13 (EMERG STABL)
C12 (ICAP)
Cultural Resource Type: STRC (Structure)
N-RMAP Program codes :

10-238 Package Number : 157

Problem Statement

The Freeman School is on the List of Classified Structures and is one of the park's prime cultural resources. There are no environmental controls in the structure. The existing heating system is inoperative and when it was operational it was only marginally effective and caused a serious drain on park funds allocated for electrical energy. Environmental controls are needed to control structural deterioration and help preserve artifacts contained within the structure.

In 1997, a small heater with thermostatic controls was placed inside the wood stove at the Freeman School to alleviate the extreme temperature fluctuations that were taking place. Funding for $5,000 was received from the Maintenenance Cyclic Repair account. The new heater was installed by a contractor and is monitored by park staff. This system has enabled the staff to conduct programs at the school during the winter season.

Description of Recommended Project or Activity

An environmental control system for the Freeman School will be contracted using plans/specifications drafted by MWR professionals. The system will be evaluated in light of existing conditions of the structure and artifacts housed within while remaining cognizant of future plans for increased public access and interpretive activities. Professionals will determine the safest, most efficient type of system available and will consider space/installation requirements and finished appearance to maintain the historic integrity of the structure.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1997:	TEMP$-CR	MIT	One-time	0.50	0.05
			Total:	0.50	0.05

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	35.00	0.00
		Total:	35.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: Failure to complete this project will lead to accelerated deterioration of the structure and artifacts on display. Interpretive use of the school and the visitor experience will be diminished.

Alternate Action: In 1997, a small heater with thermostatic controls was placed inside the wood stove in the school and wired under the floor boards to the electrical wiring under the floor of the cloak room. This semi-temporary measure has alleviated the worst of the problems in keeping the temperature moderated at 50 degree, without the extreme fluctuations during the winter season.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement

Last Update: 02/09/98
Initial Proposal: 1993

Title : PRESERVE HISTORIC STRUCTURES
Sub-title: CHINK/WHITEWASH P-E CABIN

Funding Status: Funded: 0.00 Unfunded: 4.00

Servicewide Issues : C12 (ICAP)
C06 (SITE MONIT)
Cultural Resource Type: STRC (Structure)
N-RMAP Program codes :

10-238 Package Number : 166

Problem Statement

Maintenance of the historic Palmer-Epard Cabin requires that mortar chinking be periodically replaced. Interior whitewash must be applied at cyclic intervals. No guideline exists pertaining to frequency of chinking and whitewashing activities for this structure.

Overcoating of the interior of the cabin has resulted in a thick residue of whitewash on the interior cabin walls. An inspection in May, 1997, by the MWR Historic Architect recommended that the bulk of the whitewash be removed. It is much too thick and may be trapping moisture in the interior logs. Because it chips and falls off the walls and ceiling, it has caused an unsightly appearance in the cabin. The architect's recommendation is to remove the bulk of the whitewash buildup and then apply a thin coat of whitewash to the interior logs. The walls will then be monitored and evaluated for reapplication.

Description of Recommended Project or Activity

The interior walls of the Palmer-Epard cabin are periodically whitewashed to preserve the integrity of the structure. The mortar chinking between logs is periodically inspected and replaced when needed. These actions will be performed as needed.

A preservation guide (see HOME-C-200.008) will provide management with the information necessary to schedule chinking and whitewashing activities on a cyclic basis for preservation of the structure.

Last Update: 02/09/98
Initial Proposal: 1993

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	Cyclic	4.00	0.10
		Total:	4.00	0.10

(Optional) Alternative Actions/Solutions and Impacts

No Action: Without these structural maintenance activities, the historic structure will rapidly deteriorate. Without a preservation guide, management is unsure of proper timing of these activities.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 03/01/97
Initial Proposal: 1993

Title : PRESERVE HISTORIC STRUCTURES
Sub-title: PAINT EXT OF HS-07-08-09

Funding Status: Funded: 0.00 Unfunded: 2.00

Servicewide Issues : C12 (ICAP)
C13 (EMERG STABL)
Cultural Resource Type: STRC (Structure)
N-RMAP Program codes :

10-238 Package Number : 193

Problem Statement

The Freeman School outbuildings (HS-07-08-09) were last painted in 1986 and are on a five-year cyclic schedule. There are large cracks and blisters on the exterior surfaces of these buildings. Since the school and its outbuildings are historic structures, they should be kept in a high state of maintenance and be appealing to the public view.

Description of Recommended Project or Activity

Repaint exterior of Freeman School outbuildings (HS-07-08-09) by contract using specifications and plans developed at the park level.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	Cyclic	2.00	0.00
		Total:	2.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: Failure to complete this project will result in an unmaintained appearance and lead to further deterioration of these important structures.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 03/01/97
Initial Proposal: 1993

Title : HISTORICAL RESEARCH
Sub-title:

Funding Status: Funded: 2.50 Unfunded: 50.00

Servicewide Issues : C10 (INVENTORY)
Cultural Resource Type: COMB (Combination)
N-RMAP Program codes :

10-238 Package Number : 136

Problem Statement

The basic historical research for the Monument is incomplete. Research on the Freeman family, the Freeman School, the close of the homestead era, cultural ties of group immigration and the relationship between pioneers and the native prairie ecosystem are not addressed in the historical research completed for the Monument. Significant information is lacking and without benefit of further research, management decisions and interpretive activities will be based on incomplete information.

Description of Recommended Project or Activity

Research will be contracted to a qualified historian to provide the necessary information for effective interpretation of the park. The subject areas to be covered will include the Freeman family, the Freeman School, the close of the homestead era, cultural ties of group immigration and the relationship between pioneers and the native prairie ecosystem.

BUDGET AND FTEs:

	FUNDED			
	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1993:	PKBASE-OT	RES	Recurring	0.50	0.10
1994:	PKBASE-OT	RES	Recurring	0.50	0.10
1995:	PKBASE-OT	RES	Recurring	0.50	0.10
1996:	PKBASE-OT	RES	Recurring	0.50	0.10
1997:	PKBASE-OT	RES	Recurring	0.50	0.10

		Total:	2.50	0.50

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	25.00	0.00
Year 2:	RES	One-time	25.00	0.00
		Total:	50.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: Without the information from this research the park story will continue to be incomplete and park staff will only be able to provide a limited interpretation on these topics.

In-House Research: Park staff would continue to search the literature for additional information and add new publications, as they are located, to the park library for reference. New information is gained this way, but the time necessary to actively pursue this avenue of research is limited because of other immediate duties.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : HISTORIC FURNISHING REPORT FOR PALMER-EPARD CABIN
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 45.00

Servicewide Issues : C01 (OVERVIEW)
C05 (TREATMENTS)
Cultural Resource Type: COMB (Combination)
N-RMAP Program codes :

10-238 Package Number : 142

Problem Statement

Park personnel are unsure of specific artifacts or replicas that should be displayed in the Palmer-Epard cabin. To provide effective interpretation, the interior of the cabin must reflect an accurate picture of the time period being interpreted. There is no Historic Furnishing Report for this structure to guide an accurate furnishing plan.

Description of Recommended Project or Activity

A Historic Furnishings Report will be produced for the Palmer-Epard cabin. This report will include research and recommendations from a professional historian for specific items to display in the cabin. Based on this report, management will locate sources of reproduction items for display in the cabin (see HOME-C-303.000).

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	ADM	One-time	15.00	0.00
Year 4:	ADM	One-time	30.00	0.00
		Total:	45.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: Without specific research, the cabin will continue to be furnished based on incomplete information and assumptions made by staff members. The public will not receive completely accurate interpretive information.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement

Last Update: 02/01/98
Initial Proposal: 1993

Title : UPDATE ADMINISTRATIVE HISTORY
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 20.00

Servicewide Issues : C08 (SPEC STUDY)
Cultural Resource Type:
N-RMAP Program codes :

10-238 Package Number : 178

Problem Statement

Homestead's administrative history is complete through the year 1981. An update for the years 1982 through 1991 needs to be completed.

Description of Recommended Project or Activity

The administrative history of Homestead will be updated to supplement Mattison's "Homestead National Monument: Its Establishment and Administration" and Tecklenburg's "Homestead National Monument of America: An Administrative History 1962-1981".

BUDGET AND FTEs:

FUNDED				
	Source	Activity	Fund Type	Budget ($1000s)	FTEs
			Total:	0.00	0.00

UNFUNDED				
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:		ADM	One-time	20.00	0.00
			Total:	20.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: If the administrative history of the monument is not updated, valuable historical information may be lost. The decade of the 1980's was marked by major accomplishments in all aspects of park operations; a pivotal decade as the Monument celebrated its 50th Anniversary. Valuable information could be lost if compilation of historical data is not accomplished while files are still intact and key players are still alive.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 02/01/98
Initial Proposal: 1993

Title : REPLACE ARTIFACTS IN PALMER-EPARD CABIN
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 10.00

Servicewide Issues : C71 (VISIT IMPCT)
Cultural Resource Type: OBJC (Object)
N-RMAP Program codes :

10-238 Package Number : 142

Problem Statement

Artifacts from the Homestead collection are on display in the Palmer-Epard cabin. This historic structure does not have environmental controls. The artifacts on display are subject to accelerated deterioration due to lack of environmental control. Some of the objects are misrepresentational for the exhibit purpose due to type or condition; these items also may not meet criteria for remaining in the permanent collection and may need to be deaccessioned. Some of the smaller historic objects have recently been replaced with replicas which may also be inappropriate.

Description of Recommended Project or Activity

The recommendations of a Historic Furnishings Report for the cabin (see Project Statement HOME-C-104.002) will be used to reevaluate all furnishings currently on display in the exhibit. Items on display from the museum collection which are deemed appropriate to the exhibit but which are sensitive or fragile, which meet criteria for inclusion in the collection, and/or which are unique in terms of construction, materials or significance will be replaced with replicas or antiques purchased as part of the Education Collection. Current replicas which are on display will also be evaluated and replaced as necessary. Following the recommendations of the Historic Furnishings Report, park personnel will locate sources for replica or antique replacement items as funding becomes available.

Artifacts which do not meet the criteria above may remain on exhibit as part of the permanent collection because they are not sensitive to climate fluctuations, or they may be deaccessioned to the Education Collection or other source. Sensitive artifacts which are to stay in the main collection will be fumigated according to IPM and museum collection standards, and moved into climate controlled collection storage.

Last Update: 02/01/98
Initial Proposal: 1993

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	10.00	0.00
		Total:	10.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: If the sensitive artifacts on display in the cabin are not replaced with replicas, they will continue to deteriorate. Artifacts which are inappropriate for the exhibit will continue to misrepresent the historical objectives which will be outlined in the Historic Furnishings Report.

Removal of all Objects: The artifacts could be removed from the cabin and placed in storage where they would be in a controlled environment. However, removal of the artifacts would result in an empty cabin and would severely diminish the interpretive integrity of the historic structure.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 02/01/98
Initial Proposal: 1993

Title : RENOVATE MUSEUM
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 1500.00

Servicewide Issues : C39 (HERTAGE ED)
Cultural Resource Type: COMB (Combination)
N-RMAP Program codes :

10-238 Package Number : 199

Problem Statement

Recommendations based on the updated Interpretive Prospectus and Museum Exhibits Plan indicate the museum should be renovated. Existing exhibits need to be rehabilitated and new exhibits added. Renovated media will provide the public with interpretation of the homestead story including the tallgrass prairie ecosystem and the contributions of those who immigrated to this region.

Description of Recommended Project or Activity

The mounts currently used to display objects in the museum exhibits generally subject these historic objects to unnecessary stresses. All mounts should be examined, and replaced where necessary with mountings which place the least stress and impact on the specimens. This package will reflect resources added to the park including the Freeman School, tall grass prairie and expanded trail system. A detailed description of needs for this project is contained in the updated Interpretive Prospectus for Homestead, 1990.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 4:	MIT	One-time	1500.00	0.00
		Total:	1500.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: If the current exhibits are not remounted, the museum objects will unnecessarily deteriorate and result in damage to the objects.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 02/08/98
Initial Proposal: 1993

Title : VISITOR USE AND DEMOGRAPHICS STUDY
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 10.00

Servicewide Issues : N22 (VIS USE-DEV ZN)
Cultural Resource Type:
N-RMAP Program codes : R00 (Social Science Research)

10-238 Package Number :

Problem Statement

There is currently very little scientific data about park visitors. Accurate demographic data and information about visitor use is needed to develop strategies for more effective interpretation and management of the resources.

Description of Recommended Project or Activity

A scientific study will determine visitor use patterns, visitor demographics and visitor perceptions, preferences, and expectations. The study will verify methods for collecting visitor use statistics. Accurate social statistics will allow management to determine appropriate strategies for efficient and effective interpretation and protection of the resources.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	10.00	0.00
		Total:	10.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

(No information provided)

Compliance codes :

Explanation:

Last Update: 03/01/97
Initial Proposal: 1993

Title : MONITOR VISITOR INFORMATION
Sub-title:

Funding Status: Funded: 2.00 Unfunded: 0.00

Servicewide Issues :
Cultural Resource Type:
N-RMAP Program codes : R00 (Social Science Research)

10-238 Package Number :

Problem Statement

Information about visitor points of origin is needed for determining visitation patterns. This information is used by management when planning events and interpretive programming.

Description of Recommended Project or Activity

Visitors to Homestead are encouraged by park staff to sign a guest registration book at the visitor center. Zip code data is analyzed to determine visitor home locations. This information provides a guide for determining local, regional, and national visitation patterns.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1993:	PKBASE-NR	MON	Recurring	0.50	0.10
1994:	PKBASE-NR	MON	Recurring	0.50	0.10
1995:	PKBASE-NR	MON	Recurring	0.50	0.10
1996:	PKBASE-NR	MON	Recurring	0.50	0.10
			Total:	2.00	0.40

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 02/08/98
Initial Proposal: 1997

Title : NATURAL RESOURCE MANAGEMENT
Sub-title: RESOURCE MANAGEMENT POSIN

Funding Status: Funded: 0.00 Unfunded: 147.00

Servicewide Issues : C82 (LANDSCAPES)
N08 (CULT LANDSCAPE)
Cultural Resource Type: COMB (Combination)
N-RMAP Program codes : D00 (Disturbed Area Rehabilitation)

10-238 Package Number :

Problem Statement

The park contains some 160 acres of significant natural resources including native riparian woodland along Cub Creek, a native prairie remnant at the Freeman School, and the oldest prairie restoration in the National Park Service (and second oldest restoration in the country), begun in 1939. Vegetation surveys and monitoring have identified 224 species of native prairie plants and a menacing 45 non-native plant species. A C-3 candidate species for listing as Threatened and Endangered, the prairie-specific Regal fritillary, has recolonized in the park due to the presence of the prairie restoration. Surrounded by agricultural development, the park is a refuge for a rich variety of birds and other prairie fauna as well.

Many issues relating to natural resource management must be dealt with on a daily basis, but there is no resource management staff in the park. An identified full-time GS-401 position to fill such a need has been approved, but no funding is currently available for even part-time resource management staffing. Resource management, both cultural and natural, is currently the collateral duty of one of the interpretive ranger positions, but requires much more time and expertise than that position is able to provide. Many critical project needs identified in this document, and the supplemental Prairie Management Action Plan, remain undone or incomplete. Those that are accomplished are not done to the level of scientific credibility which meets NPS standards for accountability in the care and protection of resources.

The historic prairie resources at HOME are of a significant enough nature to warrent the park's inclusion in one of only 10 servicewide prototype Inventory and Monitoring Programs, the Great Plains Prairie Parks Cluster LTEM (Long-Term Ecological Monitoring) Program. The cluster includes 4 other small, cultural parks which also restore and maintain prairie environments as historical landscapes. All of the other parks involved have full-time resource management personnel.

Description of Recommended Project or Activity

This project supports the recognized need for a permanent, full-time professional resource mangement staff member whose mitigation and accountability responsibilities would include all phases of resource management planning; implementation, tracking and monitoring of projects identified in planning documents; prescribed fire program coordination; Integrated Pest Management; coordination and oversight of research requests; liason for the Prairie Parks Cluster LTEM program; etc.

Unfunded position descriptions have been approved for either a Historian/Cultural Resource Manager or a GS-401 Natural/Cultural Resource Manager. This project would provide funding for one of these positions. The more realistic alternative action for a park this size, given the needs of both programs, would be the one resource management specialist who oversees both natural and cultural programs, supervising seasonals, SCAs and volunteers as available to accomplish objectives of both programs.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	Recurring	35.00	1.00
Year 2:	MIT	Recurring	36.00	1.00
Year 3:	MIT	Recurring	37.00	1.00
Year 4:	MIT	Recurring	39.00	1.00
		Total:	147.00	4.00

(Optional) Alternative Actions/Solutions and Impacts

Use Other Staff: If natural resource management duties are divided between already over-burdened maintenance, ranger or other non-trained staff members, their will be no one with the time or expertise to direct, coordinate and assess the program on a daily basis. Scientific accountability and coordinated direction of the program will suffer, leading to deterioration of the resources. Because of the dynamic nature of the resources,

this program requires a professional resource manager who not only can direct the project work, but who also understands why the work needs to be done, gauge the success of management actions and be able to assimilate new information into scientifically based planning.

No Action: Without adequate, trained, professional staff support for natural resources management, the park's natural resources are at great risk of deterioration, worsening exotic species, noxious weed and pest plant (thicket) encroachment. Both visually and ecologically, the prairie areas in the park would rapidly deteriorate. Sensitive prairie species would be threatened. Accountability and planning documentation would not be completed. Monitoring of critical resources such as water quality would not be accomplished.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 09/01/97
Initial Proposal: 1993

Title : RESTORE NATIVE PRAIRIE
Sub-title: FREEMAN SCHOOL PRAIRIE

Funding Status: Funded: 3.00 Unfunded: 18.00

Servicewide Issues : N05 (NON-NAT PLANTS)
N17 (BIODIVERSITY)
Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V05 (Reintroduction of Extirpated Plants)

10-238 Package Number : 146

Problem Statement

The Freeman School upland prairie is a significant resource because it represents the only never plowed, native prairie at Homestead. Nationally, less than 1% of tallgrass prairie still remains and much of it is threatened by various encroachments. The Freeman School prairie plot is highly visible to passing travelers and important to maintenance of a cultural landscape for the historic one-room school site. Due to its small size (approx. 0.5a), restoration of this prairie remnant is critical.

The aggressive invasion of exotic smooth bromegrass threatens to further deteriorate the health of the prairie remnant. Probable repeated mowing of this area as a part of the school yard after the turn of the century has resulted in the loss of species diversity. Continued deterioration of this area will result in the loss of the only remaining unplowed prairie remnant at the monument.

Description of Recommended Project or Activity

The objective is to eliminate the threat of smooth bromegrass and increase the density, diversity, and health of warm season grasses and prairie forbs.

Current research indicates that prescribed fire can be utilized to weaken the cool season bromegrass before the warm season grasses break dormancy. Use of propane torch treatments has proven successful in on-site test plots for weakening brome stands. Smooth bromegrass can also be damaged by repeated mowings during internodal growth before seed heads mature.

Presecribed fire, propane torch treatments and/or mowing will be utilized as appropriate to weaken and eliminate the bromegrass stands in the area. Overseeding with native species into brome

stand areas will be accomplished after initial treatments. The initial intensive eradication treatments will be performed by SCA, seasonal or other supplemental labor force under the direction of permanent staff. Follow-up eradication will be completed with above techniques as necessary to allow native seedlings to become established. Prescribed fire on a cyclic basis (see ITP in the PMAP), funded by FIREPRO, will be used in initial and follow-up control of brome (see Project #102.001). The project will follow the treatment timetable and guidelines in the Integrated Treatment Plan of the Prairie Management Action Plan.

The area will be monitored as outlined in the Interim Inventory and Monitoring Plan. Monitoring may indicate a need to further enhance diversity or propogation of under-represented indicator species or plant families (see Project Statement N-101.003). Monitoring will also indicate success of management techniques in controling smooth brome and whether there is a need to continue and/or alter intensive eradication methods.

The annexation of a small buffer zone of newly acquired land around this native prairie plot has been completed, and seeding of the buffer strip to the west of the original prairie has been completed. Upland/upland transition plant species were utilized. The buffer to the north of the original prairie was converted into a parking lot for visitors to the school. The construction of a trail from the parking lot to the school should avoid intrusion of the original prairie plot. The buffer area which is being restored should be managed over the long term to integrate in appearance with the original prairie.

The activities to protect and enhance the Freeman School native prairie remnant offer a unique interpretive opportunity to 1) educate visitors about the increasing rarity of native tallgrass prairie and the threats of exotic encroachment on small existing remnants, 2) provide a landscape for interpreting the setting of early one room school houses on the prairie. Few remaining historic school houses also retain their historic landscape setting intact.

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
			FUNDED		
1993:	PKBASE-NR	RES	One-time	0.50	0.05
	PKBASE-NR	MIT	One-time	0.50	0.05
			Subtotal:	1.00	0.10

increase in trees and woody species growth over time both on this site and across the Great Plains since the homesteading era.

BUDGET AND FTEs:

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED					
1994:	TEMP$-NR	MIT	Recurring	0.50	0.10
1995:	TEMP$-NR	MIT	Recurring	0.50	0.10
			Total:	1.00	0.20
UNFUNDED					
		Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:		RES	One-time	3.00	0.00
		INT	One-time	0.50	0.10
			Subtotal:	3.50	0.10
Year 2:		MIT	One-time	5.00	0.50
		INT	Recurring	0.20	0.05
			Subtotal:	5.20	0.55
Year 3:		MIT	One-time	5.00	0.50
		INT	Recurring	0.20	0.05
			Subtotal:	5.20	0.55
			Total:	13.90	1.20

(Optional) Alternative Actions/Solutions and Impacts

No Action: All existing trees would be allowed to remain. This would eventually result in succession of prairie to woodlands, not a management objective. Shade tolerant exotic vegetation would replace the shade intolerant native species.

Remove All Trees: Removal of historically significant trees is not in keeping with management practices and would also lessen the impact of interpretive opportunities to tie the natural and historic resources together.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : RESTORE NATIVE PRAIRIE
Sub-title: BROME ERADICATION

Funding Status: Funded: 0.00 Unfunded: 15.80

Servicewide Issues : N05 (NON-NAT PLANTS)
N06 (LAND USE PRAC)
Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V04 (Exotic Plant Management)

10-238 Package Number : 146

Problem Statement

Non-native smooth brome (Bromus enermis), which has been planted as a forage crop by farmers around the park's boundary, is an encroachment problem threatening the park's historic restored prairie, the native prairie plot at the Freeman School, and the woodland edge ecotone areas throughout the park. Especially in shaded areas near historic trees, along the historic osage orange hedgerow, and along the woodlands edge, shade tolerant smooth brome has taken a dramatic hold to the virtual exclusion of native plant species. The Freeman School native prairie plot is at risk of complete take-over by smooth brome if a conserted and intensive effort at brome reduction, and reintroduction of native species, is not undertaken soon.

Because it forms a dense monoculture which discourages other plants from establishing and propogating, smooth brome has a dramatic visual effect on the areas where it is entrenched. Its eradication is necessary in order to reestablish native species and diversity. These elements are critical to the successful and realistic representation of the prairie as an interpretive medium and landscape.

Permanent park staffing is inadequate to accomplish initial control and reseeding of brome infested areas.

Description of Recommended Project or Activity

This project follows procedures outlined in the Integrated Treatment Plan of the Prairie Management Action Plan for a 2-year eradication campaign against smooth brome using techniques which have been tested on-site. Eradication techniques will be supplemented by overseeding of treated areas with appropriate native grass and forb seed mixtures, to revegetate infested areas. With follow-up treatments, native species should be able to out-compete smooth brome. Shaded areas may require additional

follow-up treatments for reseeding to be effective.

Initial control and reseeding work will be performed by seasonal or SCA labor under the direction of park staff.

See also Project Statement N-101.001 for information pertaining to the Freeman School native prairie plot.

Interpretative efforts will include information on the critical problem of exotic species/pest plant invasion, both as it applies to Homestead and other national parks and public lands. Interpretive programming can also use the historic significance of the Homestead prairie restoration as representation of the human attempt to restore what rapid settlement, agriculture and the Dust Bowl degraded.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	8.00	0.50
	INT	Recurring	0.20	0.05
		Subtotal:	8.20	0.55
Year 2:	MIT	One-time	6.00	0.25
	INT	Recurring	0.20	0.05
		Subtotal:	6.20	0.30
Year 3:	MON	Recurring	0.50	0.05
	INT	Recurring	0.20	0.05
		Subtotal:	0.70	0.10
Year 4:	MON	Recurring	0.50	0.05
	INT	Recurring	0.20	0.05
		Subtotal:	0.70	0.10
		Total:	15.80	1.05

(Optional) Alternative Actions/Solutions and Impacts

No Action: Failure to control exotic smooth brome has already resulted in loss of native prairie habitat at the Freeman School, as well as biological diversity in woodland edge areas. Continuing to allow the encroachment of this invasive plant will further deteriorate the health of prairie and edge ecosystems and the loss of viable habitat for prairie plant, animal and insect species. The visual dominance of brome perpetuates a misrepresentation of the desired historic landscape to visitors.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : RESTORE WOODLANDS
Sub-title: TORNADO DAMAGE

Funding Status: Funded: 0.00 Unfunded: 7.00

Servicewide Issues : N24 (OTHER (NATURAL))
Cultural Resource Type:
N-RMAP Program codes : H00 (Pest and Hazard Management)
H03 (Tree Hazard Management)

10-238 Package Number :

Problem Statement

On May 8, 1996, a tornado touched down in or near the wooded area of the park immediately across Highway 4 from the Visitor Center area. Numerous large mature trees were downed or severly damaged in the incident. Portions of this wooded area are now inaccessible due to tangles of massive tree limbs on the ground and caught or hanging in the upper story of the tree canopy. The area presents a hazard to park employees, researchers, utility workers or others who might need access to the area. The extensive damage needs to be cleared by chainsawing and removing hazardous branches and limbs, and to allow some access to the area. Park staffing is not adequate to complete this task.

Description of Recommended Project or Activity

Contract labor will be used to saw and remove hazardous trees, limbs and branches, and create better access for foot traffic into the area. Where possible, downed and storm-damaged vegetation will be left to decay and provide opportunistic habitat for birds, insects and mammals as resulting from the natural process of the storm which caused the damage. Log jams created in Cub Creek from downed material from this storm will be removed as per WRD recommendations to alleviate constrictions in the stream channel which might contribute to back-up and flooding of the creek into the developed zone of the park which lies in the flood plain.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	3.00	0.00
Year 2:	RES	One-time	4.00	0.00
		Total:	7.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: Failure to remove storm-damaged limbs and branches will contribute to safety hazards and lack of access into the area, as well as possible flooding resulting from log jam back-ups on Cub Creek.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : PRESERVE NATIVE/RESTORED PRAIRIE
Sub-title: RX FIRE PROGRAM

Funding Status: Funded: 12.60 Unfunded: 16.60

Servicewide Issues : N07 (NAT FIRE REGM)
N05 (NON-NAT PLANTS)
Cultural Resource Type:
N-RMAP Program codes : F00 (Prescribed Fire Management)
F01 (Prescribed Burn Operations)

10-238 Package Number :

Problem Statement

Wildfire historically burned the prairie throughout the Great Plains. Wildfire is an essential element of a tallgrass prairie ecosystem according to commonly accepted scientific theory. As such, prescribed fire is essential to the successful and realistic representation of the prairie as an interpretive medium and landscape.

Fire is used in accordance with an approved fire management plan to replicate the historic fire regime. The goals of prescribed fire are to reduce thatch build-up, inhibit the growth of exotic species, control the spread of woody species, and enhance biodiversity and the growth of native species.

Homestead's Prairie Management Action Plan relies heavily on the benefits of Rx burning in the accomplishment of management objectives. However, the small size of the permanent staff is not adequate to support a qualified fire crew so that burning can be accomplished as needed during optimum treatment times and favorable weather windows. Park base funding likewise is not adequate to support the Rx fire program.

Description of Recommended Project or Activity

Cyclic prescribed burns will be conducted according to the regime outlined in the Integrated Treatment Plan of the Prairie Management Action Plan. Fire crew members, crew leader and burn boss will be scheduled and imported from other parks and federal agencies in the Midwest Region, requiring funding for travel and per diem expenses. Funding will be requested annually from FIREPRO to support these expenses as well as fire equipment replacement needs within the park.

Experience with this approach indicates that this is still an unreliable means of assuring completion of Rx burns, due to the

difficulty of coordinating the scheduling of crew members who cannot leave their parks at the necessary times or cannot be absent from their own jobs long enough to wait out unfavorable weather conditions on site here. Therefore, the ideal solution to Homestead's Rx fire needs, as well as the needs of other small parks, is the creation of a regional or field area Rx burn team which could perform the cyclical burning for the small parks which will likely continue to have inadequate staffing.

Fire effects monitoring, to gauge the effectiveness and need for adjustment of the Rx burn program, will be conducted by regional fire management personnel and/or with the assistance of the LTEM Team.

The prescribed burn program will be supported by educational and interpetive programs and media which encourage understanding of the complexity and inter-relatedness of the prairie ecosystem. The relationship between humans and the prairie environment from the time of Native American habitation to the present will be a key focus. The occurance of prairie fires was a frightening and ever-present threat for homesteaders, and yet it was a critical ecological element by which the prairie was naturally maintained prior to settlement. Also, Native Americans had set fires as a means of drawing bison to the fresh grass growth of hunting grounds. Historical accounts of the effect of prairie fires on the lives of homesteaders, and research on the replication of prairie fires by Native Americans can be utilized to produce a wayside exhibit or site bulletin which presents this connection of people to the prairie.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1993:	PKBASE-NR	MIT	One-time	2.00	0.50
1996:	FIRE-$	MIT	One-time	1.50	0.00
1997:	FIRE-$	MIT	One-time	4.10	0.00
1998:	FIRE-$	MIT	One-time	5.00	0.00
			Total:	12.60	0.50

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	5.00	0.00
	INT	One-time	1.00	0.25
		Subtotal:	6.00	0.25

Year 2:	MIT	One-time	5.00	0.00
	INT	Recurring	0.20	0.05
		Subtotal:	5.20	0.05
Year 3:	MIT	One-time	5.00	0.00
	INT	Recurring	0.20	0.05
		Subtotal:	5.20	0.05
Year 4:	INT	Recurring	0.20	0.05
		Total:	16.60	0.40

(Optional) Alternative Actions/Solutions and Impacts

No action: The exclusion of fire from the natural prairie regime not only decreases the number of available options for restoration, but also takes out a vital component of the natural order of prairie maintenance. The park will be unable to maintain a healthy, viable restored prairie ecosystem to represent the desired landscape scene. Educational and interpretive programs will be unable to present a true picture of the tallgrass prairie as a context for interpreting the homesteading movement, and the human relationship to the prairie. Protection and restoration of the native prairie remnant at the Freeman School will be seriously compromised and threatened.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 02/08/98
Initial Proposal: 1993

Title : PRESERVE NATIVE/RESTORED PRAIRIE
Sub-title: THICKET CONTROL

Funding Status: Funded: 26.00 Unfunded: 15.10

Servicewide Issues : N06 (LAND USE PRAC)
N08 (CULT LANDSCAPE)

Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V01 (Native Terrestrial Plant Management and Monitoring)

10-238 Package Number : 146

Problem Statement

Woody thickets are a natural part of the tallgrass prairie ecosystem, having typically existed in drainages and along creek banks where moisture was available. However, thicket expansion through succession and the rapid rate of expansion, possibly as a result of influences from surrounding agricultural activities, has caused the upland prairie unit and portions of the lowland prairie unit to contain a higher percentage of woody thickets than desired. Large mature woody thickets shade out other prairie vegetation, and, in the absence of historic natural forces (fire and grazing) which kept woody vegetation under control, invading woody species will take over the prairie in a few years. The proper proportion and location of woody thickets which would have existed historically is visually important to a realistic representation of the tallgrass prairie landscape as an interpretive context.

Control of woody thickets can be affected through the use of prescribed fire, manual reduction techniques, and limited use of approved herbicides. But the very nature of the competitiveness of woody thickets causes control measures to be labor intensive. The limited number of permanent staff is inadequate to conduct initial manual reduction and treatment techniques.

Description of Recommended Project or Activity

A seasonal or SCA staff of 2-4, to supplement the permanent resource management staff, is needed to perform the initial intensive manual removal and treatment techniques of thicket control as prescribed in the Prairie Management Action Plan. Two brushhog mowers, two chain saws and other necessary equipment must be maintained and available for use to conduct this project.

Combined with the use of cyclical prescribed fire (see Project

#102.001), permanent staff should be able to maintain a proper balance of woody vegetation once initial removal of older, mature thickets and predominating younger thickets which have been allowed to develop has been achieved. Maintenance of a balanced vegetative community will take a continuing management commitment to providing the necessary permanent or seasonal staff in the spring for thicket management in the appropriate burn units (see Integrated Treatment Plan in the Prairie Mgt. Action Plan).

Development of a monitoring protocol to gauge the effectiveness of management actions to control thickets is needed, particularly as it pertains to determining the right cycle of prescribed fire treatments.

BUDGET AND FTEs:

	Source	Activity	FUNDED Fund Type	Budget ($1000s)	FTEs
1993:	PKBASE-NR	MIT	Recurring	2.00	0.10
1994:	PKBASE-NR	MIT	Recurring	1.00	0.10
	TEMP$-NR	MIT	One-time	5.00	0.00
			Subtotal:	6.00	0.10
1995:	PKBASE-NR	MIT	Recurring	1.00	0.10
	TEMP$-NR	MIT	One-time	5.00	0.00
			Subtotal:	6.00	0.10
1996:	PKBASE-NR	MIT	Recurring	0.50	0.05
	TEMP$-NR	MIT	One-time	3.00	0.00
			Subtotal:	3.50	0.05
1997:	PKBASE-NR	MIT	Recurring	0.50	0.05
1998:	PKBASE-NR	MIT	Recurring	2.00	0.10
1999:	PKBASE-NR	MIT	Recurring	2.00	0.10
2000:	PKBASE-NR	MIT	Recurring	2.00	0.10
2001:	PKBASE-NR	MIT	Recurring	2.00	0.10
			Total:	26.00	0.80

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	5.00	0.00
	INT	Recurring	0.50	0.05
		Subtotal:	5.50	0.05
Year 2:	MIT	One-time	5.00	0.00
	INT	Recurring	0.20	0.05
		Subtotal:	5.20	0.05
Year 3:	MIT	One-time	2.00	0.00
	INT	Recurring	0.20	0.05
		Subtotal:	2.20	0.05
Year 4:	MIT	One-time	2.00	0.00
	INT	Recurring	0.20	0.05
		Subtotal:	2.20	0.05
		Total:	15.10	0.20

(Optional) Alternative Actions/Solutions and Impacts

No Action: Failure to control woody thickets will allow an aggressive successional takeover of the Homestead prairie to proceed and the management objective of maintaining a homesteading era prairie landscape as an interpretive context will be compromised. All past mitigation efforts to achieve this objective will have been lost.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : PRESERVE NATIVE/RESTORED PRAIRIE
Sub-title: EXOTICS CONTROL

Funding Status: Funded: 0.20 Unfunded: 10.30

Servicewide Issues : N05 (NON-NAT PLANTS)
N06 (LAND USE PRAC)
Cultural Resource Type:
N-RMAP Program codes :

10-238 Package Number : 146

Problem Statement

Due to disturbance of the soil and influences from outside the Monument, numerous weeds and exotic plant species persist at Homestead. The encroachment and entrenchment of smooth brome (Bromus enermis) poses the worst threat and is the subject of a separate project statement (see N-101.005). Two other exotics pose the next greatest threats. They are non-native thistles (Cirsium sp.), some of which are listed as Nebraska noxious weeds, and reed canarygrass (Phalaris arundinacea), an aggressive hybridized native which is routinely used to revegetate road shoulder and wetland areas after ground disturbed by construction.

Other weed species which invade newly restored areas of the prairie include pigweed (Amaranthus sp.), bindweed (Convolvulus sp.), mullein (Verbascum thapsus) and foxtail (Setaria sp.) These weeds and exotic species continue to invade the Monument from a variety of sources. Control of these and other species is necessary to retain the ecological and aesthetic integrity of the prairie. Invasive non-native species seriously impact the visual representation of the prairie as an interpretive medium and landscape.

The small size of Homestead's permanent staff is inadequate to handle the initial, and in some cases, continuing control methods for the most problematic of the these exotic species.

Description of Recommended Project or Activity

Treatment of thistles will be accomplished by seasonal or SCA staff in combination with permanent staff. Manual cutting will be supplemented by topical systemic herbicide treatments to basal rosettes. Reed canarygrass will also be treated by a combination of cutting and herbicide treatment (yet to be determined). Sweet clovers will be cut by mowing of patches as soon as they are identified, preferably before seeding. Annual weeds and exotics

occuring in newer restoration areas will be treated as needed by repeated mowing or cutting before seed heads mature. Other exotics will be manually removed as they occur and/or as they become problematic.

All park staff, including seasonal and temporary employees, will be trained to recognize and watch for the occurance of leafy spurge (Euphorbia esula). Although not yet identified in the park, it has been found on sites in and around Lincoln, Nebraska, 45 miles away. Should it be discovered at Homestead, an aggressive and immediate eradication plan will be implemented.

All herbicide use will be topical or systemic by direct application only in order to minimize spread to native plant species or ground/water contamination. Herbicides will only be used in cases where non-chemical methods are ineffective.

Interpretive programming will include information on the critical issue of exotic species/pest plant invasion, both as it relates to Homestead and other national parks and public lands. Information on early agricultural tools and practices can also be incorporated.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1997:	PKBASE-NR	MIT	Recurring	0.20	0.05
			Total:	0.20	0.05

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	INT	Recurring	0.20	0.05
	MIT	One-time	3.00	0.50
		Subtotal:	3.20	0.55
Year 2:	INT	Recurring	0.20	0.05
	MIT	One-time	3.00	0.50
		Subtotal:	3.20	0.55
Year 3:	INT	Recurring	0.20	0.05
	MIT	One-time	3.00	0.50
		Subtotal:	3.20	0.55

Year 4:	MIT	Recurring	0.50	0.10
	INT	Recurring	0.20	0.05
		Subtotal:	0.70	0.15
		Total:	10.30	1.80

(Optional) Alternative Actions/Solutions and Impacts

No Action: This alternative allows exotic species to gain a firm hold on disturbed ground, especially those areas which have undergone restoration. Without management intervention, exotic species will continue to dominate and spread from those areas of the prairie where they are already well established, and will continue to pose a takeover threat to the remaining areas of the prairie. The visual dominance of non-native species negatively affects the use of the prairie as an interpretive medium and landscape.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : PRESERVE NATIVE/RESTORED PRAIRIE
Sub-title: CYCLIC HAYING

Funding Status: Funded: 0.00 Unfunded: 5.60

Servicewide Issues : N06 (LAND USE PRAC)
N08 (CULT LANDSCAPE)
Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V01 (Native Terrestrial Plant Management and Monitoring)

10-238 Package Number :

Problem Statement

Research indicates that prairie is best managed by a combination of techniques which roughly replicate the historic disturbance regimes to which the native prairie was adapted and dependent upon. These management techniques include prescribed fire to replicate natural prairie fires, and haying to replicate grazing of bison and other large ungulates. Health and diversity of the prairie ecosystem are highly dependent upon these influences. A prescribed burning regime is currently being applied to the Homestead prairie. In areas where, or during times when burning is impractical or unsafe, cyclic haying is needed as an alternative treatment for removing thatch build-up and hazardous fuel reduction, and to stimulate vegetative diversity. The park does not have the equipment or staff necessary to perform this function.

Description of Recommended Project or Activity

Haying (cutting, baling and removal of vegetative material) will be used as an alternative to burning for the Pioneer Acres section of the prairie. Rx burning of this section is not practical because of the proximity to private homes and property. Cyclic haying of this area will be done every three years beginning in 1997.

Haying of the Freeman School native prairie remnant will be done periodically (see the Integrated Treatment Plan in the Prairie Mgt. Action Plan) as a supplement to Rx burning to roughly replicate a plant response which is similar to that resulting from grazing. This will benefit this small heavily impacted prairie remnant by stimulating diversity.

For other areas of the main prairie restoration, haying may be used both to encourage diversity and discourage thicket

resprouting. Existing burn units should be used if cyclic haying treatments are substituted for Rx burning with a primary objective of discouraging thicket regrowth. If the primary objective for haying treatments is to stimulate species diversity, then a more random selection of treatment areas would be indicated.

Two alternatives for this project include: 1) haying will be contracted to a local source, or 2) historical haying equipment will be acquired by the park and demonstrated by volunteers or park staff in the areas which are identified as needing haying for resource management objectives.

The issue of viewshed management will need to be addressed before routine cyclic haying on the main prairie can begin, since the probable timing of haying activities in mid-summer would negatively impact the prairie viewshed during the busiest part of the visitor season. Haying of only small areas at a time using historic haying equipment may prove to be the best solution.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	2.00	0.00
	INT	Recurring	1.00	0.10
		Subtotal:	3.00	0.10
Year 2:	MIT	Recurring	0.50	0.00
	INT	Recurring	0.20	0.05
		Subtotal:	0.70	0.05
Year 3:	MIT	Recurring	0.50	0.00
	INT	Recurring	0.20	0.05
		Subtotal:	0.70	0.05
Year 4:	MIT	Recurring	1.00	0.00
	INT	Recurring	0.20	0.05
		Subtotal:	1.20	0.05
		Total:	5.60	0.25

(Optional) Alternative Actions/Solutions and Impacts

No Action: Failure to institute a haying regime for the Pioneer Acres Triangle will result in a dangerous build-up of hazardous fuels in the proximity of a private housing development. Failure to institute a haying regime in other areas will decrease the opportunity for enhancing species diversity in those areas. This will negatively affect the prairie's use as an interpretive medium and historic landscape. It would also be the loss of an ideal opportunity to combine meeting resource management and interpretive needs by implementing historical agricultural demonstrations for visitors.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : PRESERVE HISTORIC TREES
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 10.00

Servicewide Issues : N08 (CULT LANDSCAPE)
C14 (MAINTENANCE)
Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)

10-238 Package Number :

Problem Statement

The south boundary of Homestead National Monument contains an osage orange hedgerow originally planted by Daniel Freeman. An undetermined number of the osage orange trees may be a part of the original planting, while others have self-propogated since Daniel's time. Other tree species have been periodically established in the hedgerow through natural seeding. These trees compete with the Osage orange and degrade the historical integrity of the hedgerow.

Osage orange trees will not grow forever. Any old, original trees will be near the end of an average lifespan. In order to preserve the hedgerow as a historical representation and interpretive tool, new trees must be planted and cultivated to replace those that die.

The cultural significance of the hedgerow should be explained and interpreted to the public. A funding request (10-238, package #190) for a wayside interpretive exhibit about the Osage orange hedgerow was submitted in 1989.

Description of Recommended Project or Activity

Due to the labor intensive nature and length of time necessary for rehabilitating and maintaining a historical hedgerow, a 100 yard section of the existing hedgerow will be restored and maintained with the traditional plashing, pruning, and braiding as was done by the homesteaders.

The remainder of the hedgerow will receive little management treatment to allow it to continue to approximate hedgerows as they are seen today. The contrast between the two management treatments will be utilized to interpret the hedgerow.

The restored portion of the hedgerow will be planted with osage orange seedlings as needed to restore its historical appearance.

The number of trees needed to repair the hedgerow to its historical configuration will be determined and a contract for osage orange seedlings, hedgerow preparation, and planting of seedlings will be let. The contract should include a three-year maintenance agreement, under which seedlings which die will be replaced. Invading tree species will be removed from this section using manual removal techniques.

Maintenance of the restored hedgerow will be conducted annually by park staff following the initial contract restoration period. It will take several years before new trees are ready to be used to demonstrate the historical use of the hedgerow.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	5.00	0.00
Year 2:	MIT	One-time	2.00	0.00
Year 3:	MIT	One-time	2.00	0.00
Year 4:	MIT	Recurring	1.00	0.10
		Total:	10.00	0.10

(Optional) Alternative Actions/Solutions and Impacts

No Action: Failure to maintain the historic hedgerow will result in the loss of this resource as a historical representation and interpretive tool.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 02/08/98
Initial Proposal: 1993

Title : MONITOR NATURAL RESOURCES
Sub-title: MONITORING PROGRAM

Funding Status: Funded: 5.00 Unfunded: 4.00

Servicewide Issues : N20 (BASELINE DATA)
N06 (LAND USE PRAC)
Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V01 (Native Terrestrial Plant Management and Monitoring)

10-238 Package Number :

Problem Statement

Restoration of native prairie at Homestead has been a management goal since 1938. In 1985 vegetation research was conducted leading to recommendations for use of various restoration methodologies. Since then, many techniques such as reseeding, transplanting sod and prescribed burning have been employed. An Interim Monitoring Plan was written and initiated in 1994, which includes basic vegetatin monitoring by the modified step-point method, and surface water quality monitoring of Cub Creek for chemical and macroinvertebrate data (see Prairie Mangement Action Plan, Appendix D).

Also in 1994, the park became a Long Term Ecological Monitoring prototype site as a part of the Prairie Cluster project. Protocol development for several key monitoring needs are under development as a part of that project. Several other protocols will eventually need to be developed through that project, or by other means, for site specific needs such as monitoring of regal fritillary butterfly populations and habitat, and Rx fire effects.

Assistance is needed to interpret data findings from current and future data collection, as their is no permanent resource management specialist currently on staff. Assistance is also needed to determine permanent monitoring needs and write a permanent Inventory and Monitoring Plan which can be conducted by the small staff in cooperation with the LTEM program staff.

Description of Recommended Project or Activity

As protocols are being developed through the LTEM program, the Interim I&M Plan will need to be updated to reflect changes in procedure or protocol types. Over the next 3-5 years, a comprehensive program of monitoring needs will be identified and

established. The park will request the assistance of the LTEM program team to accomplish this. The result will be a permanent I&M Plan for the park which replaces the Interim Plan, and which can effectively evaluate management actions and resource condition/needs. The monitoring program will be taylored to fit the needs of management, taking into account the small staff size and the lack of a staff resource management specialist. It will incorporate monitoring activities which the park will conduct for its own uses, and those which will be done by the LTEM Team over the long term.

The new plan will contain provisions for analyzation and interpretation of data by the LTEM team or other outside source, with reports and recommendations back to park management. Evaluation of data from the various monitoring regimes will reflect success or failure of management actions and indicate needed actions for continued prairie restoration and preservation activities.

Information gained through monitoring activities can be incorporated into interpretive programming to illustrate the human attempt to restore what rapid settlement, agriculuture and the Dust Bowl degraded in the wake of the homesteading movement. Data pertaining to the diversity of the prairie ecosystem and the adaptability of prairie species can be used to illustrate principles of sustainability, and the research that is being done to develop perennial grain crops from hybrid prairie species.

BUDGET AND FTEs:

	Source	Activity	FUNDED Fund Type	Budget ($1000s)	FTEs
1993:	PKBASE-NR	MON	Recurring	1.00	0.10
1994:	PKBASE-NR	MON	Recurring	1.00	0.10
1995:	PKBASE-NR	MON	Recurring	1.00	0.10
1996:	PKBASE-NR	MON	Recurring	0.50	0.05
1997:	PKBASE-NR	MON	Recurring	0.50	0.05
1998:	PKBASE-NR	MON	Recurring	1.00	0.10
			Total:	5.00	0.50

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	Recurring	2.00	0.20
Year 2:	MON	Recurring	2.00	0.20
		Total:	4.00	0.40

(Optional) Alternative Actions/Solutions and Impacts

No Action : Without a monitoring program, management cannot accurately determine if proper resource management techniques are being applied. Although research indicates a variety of techniques to be utilized in prairie restoration, evaluation of data compiled locally is needed to assess the results of management actions on the prairie ecosystem. Both the visual and ecological properties of the park's prairie areas will deteriorate if management actions are not monitored for effectiveness of outcome. Educational and interpretive programs will be less effective in presenting a true picture of the tallgrass environment as a context for interpreting the homesteading movement, and the human relationship to the prairie.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement

HOME-N-103.002
Priority: 999
Page Num: 0084

Last Update: 09/02/97
Initial Proposal: 1993

Title : MONITOR VISUAL QUALITY OF PRAIRIE
Sub-title: PHOTO STATIONS

Funding Status: Funded: 3.20 Unfunded: 0.00

Servicewide Issues : N20 (BASELINE DATA)
N06 (LAND USE PRAC)

Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V01 (Native Terrestrial Plant Management and Monitoring)

10-238 Package Number :

Problem Statement

Management recommendations made in the 1985 vegetation survey include monitoring the aesthetic quality of the prairie over time. For analysis purposes, this needs to be accomplished through the use of photo stations. Photographic records also are utilized to monitor vegetative changes in evaluation of management actions, and are sometimes needed to illustrate land use changes or needs on surrounding land for legal or other purposes.

Description of Recommended Project or Activity

Photo stations are utilized to monitor aesthetic quality of the prairie. A written policy for completion of photo stations is on file at the park (see HOME-RM-87-02). Color slides and black and white photographs are taken from established photo points three times per year. Analysis of photographs indicates changes to vegetation over time and are utilized to determine aesthetic quality of the prairie. The photographs also provide a valuable interpretive tool to compare the changes in surrounding land use in modern times with the uses and condition of the land before and during the homesteading era. This project is currently being accomplished by park staff with the assistance of seasonal/SCA assistants.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1993:	PKBASE-NR	MON	Recurring	0.50	0.05
1994:	PKBASE-NR	MON	Recurring	0.50	0.05
1995:	PKBASE-NR	MON	Recurring	0.50	0.05
1996:	PKBASE-NR	MON	Recurring	0.20	0.02
1997:	PKBASE-NR	MON	Recurring	0.50	0.05
1998:	PKBASE-NR	MON	Recurring	1.00	0.10
			Total:	3.20	0.32

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs
	Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : MONITOR SURFACE WATER QUALITY
Sub-title: CUB CREEK

Funding Status: Funded: 8.00 Unfunded: 0.00

Servicewide Issues : N20 (BASELINE DATA)
N11 (WATER QUAL-EXT)
Cultural Resource Type:
N-RMAP Program codes : Q00 (Water Resources Management)
Q01 (Water Resources Management)

10-238 Package Number :

Problem Statement

A research project to obtain baseline data of benthic macroinvertebrates and chemical constituents of Cub Creek was completed in 1991. A proposal to establish a monitoring program on Cub Creek was a part of this research project. A systematic inventory and monitoring system to determine the condition of and assess changes to Cub Creek is needed to determine the health of this riparian zone. Park staff and funding are insufficient to conduct this monitoring without supplemental funding for equipment, analysis of samples and staff assistance. Interpretation of contracted analysis needs to be done by the Long Term Ecological Monitoring Team or other outside source with recommendations made to park management.

Description of Recommended Project or Activity

Park staff have initiated a monitoring program of the benthic macroinvertebrates and chemical components of Cub Creek. Samples will are taken from two designated locations, 3 to 4 times per year. Collected samples will be forwarded to a contractor for macroinvertebrate data collection and chemical analysis. The contractor will compile the data which will be returned to the park for inclusion in the aquatic resource data base. The data will be evaluated and interpreted by outside experts since no expertise exists within the park staff.

The protocol was updated in 1997 by the LTEM and past data was compiled. Henceforth, the LTEM will provide most supplies and the contractor for identification. Reports will be provided to the park. The park will be responsible for placing and retreiving the samplers and sending to the contractor. This is currently being done by park staff.

Information for this project is contained in the publication "Manual for Implementation and Development of Aquatic Resource

Inventory and Monitoring Methodology in Prairie Parks, Homestead National Monument". See also the Interim Inventory and Monitoring Plan in the Prairie Mgt. Action Plan.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1994:	PKBASE-NR	MON	Recurring	0.50	0.10
	NRPP	MON	Recurring	2.00	0.00
			Subtotal:	2.50	0.10
1995:	NRPP	MON	Recurring	2.00	0.00
	PKBASE-NR	MON	Recurring	0.50	0.10
			Subtotal:	2.50	0.10
1996:	NRPP	MON	Recurring	2.00	0.00
	PKBASE-NR	MON	Recurring	0.50	0.10
			Subtotal:	2.50	0.10
1997:	PKBASE-NR	MON	Recurring	0.50	0.05
			Total:	8.00	0.35

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs
	Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: Because of agricultural activities in the watershed above Homestead, it is important to monitor stream health in the park. Changes in the macroinvertebrate community are good indicators of changes in stream health. Without this information management will be unable to determine the effects of non-point source stream pollutants.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : DESIGN AND REPLACE WATER LINES
Sub-title: PUBLIC HEALTH

Funding Status: Funded: 5.00 Unfunded: 275.00

Servicewide Issues : N11 (WATER QUAL-EXT)
Cultural Resource Type:
N-RMAP Program codes : Q00 (Water Resources Management)

10-238 Package Number :

Problem Statement

High nitrate levels have been detected in the domestic water supply. The park water supply needs to be monitored to determine nitrate levels for public health reasons. Nitrate levels need to be controlled to a level within acceptable limits. The present well and delivery system was designed and installed in the early 1960's. Rust accumulates in the pipes and the system is fragmented from a variety of incompatible metals and materials. Increased coliform bacteria violations could result in an added health emergency. And a bad visitor experience could result from seeing cloudy, rust colored water in a drinking fountain or in restroom facilities.

The galvanized pipes and pressure tank are deteriorating due to rust and it is very difficult to find replacement parts to repair and maintain this old system. An additional safety hazard exists as overhead water lines in the visitor center are located very close to 4 computer work stations, copier, fax, and net blazer.

Description of Recommended Project or Activity

Analysis of treated drinking water derived from ground water is conducted to determine levels of nitrates and coliform in the domestic water supply. Routine cyclic water samples are collected by park staff and forwarded to state laboratories for analysis. A system for reducing nitrate levels in the domestic water supply has been installed.

Park staff also collects triennial samples of untreated well water for analysis of chemical content including lead and copper. Any deviation from acceptable water quality standards will need mitigation efforts.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1993:	PKBASE-NR	MON	Recurring	1.00	0.10
1994:	PKBASE-NR	MON	Recurring	1.00	0.10
1995:	PKBASE-NR	MON	Recurring	1.00	0.10
1996:	PKBASE-NR	MON	Recurring	1.00	0.10
1997:	PKBASE-NR	MON	Recurring	1.00	0.10
			Total:	5.00	0.50

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 4:	MIT	One-time	275.00	0.00
		Total:	275.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: Without a monitoring system, management will be unable to determine pollutant levels in the water supply. If management does not know the level of nitrates, and other potentially harmful pollutants or elements, mitigation will be impossible and human health risks may result.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : MONITOR AND CONTROL EROSION
Sub-title: FOOT BRIDGE AREA

Funding Status: Funded: 1.00 Unfunded: 0.00

Servicewide Issues : N12 (WATER FLOW)
Cultural Resource Type:
N-RMAP Program codes : Q00 (Water Resources Management)
Q01 (Water Resources Management)

10-238 Package Number :

Problem Statement

Erosion of the creek bank under the Cub Creek footbridge threatened the integrity of the bridge. Rock gabions were installed to control erosion.

Description of Recommended Project or Activity

Park personnel will monitor the area around the gabions to determine their effectiveness for erosion control and to detect erosion problems to the stream bank adjcent to the gabions. Information from the hydrology study described in sub-project HOME-N-300.004 will be used to provide preventive measures against streambank erosion.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1994:	TEMP$-NR	MON	Recurring	0.50	0.10
1996:	TEMP$-NR	MON	Recurring	0.50	0.10
			Total:	1.00	0.20

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : MONITOR AND CONTROL EROSION
Sub-title: SOUTH BOUNDARY AREA

Funding Status: Funded: 1.00 Unfunded: 0.00

Servicewide Issues : N06 (LAND USE PRAC)
N12 (WATER FLOW)
Cultural Resource Type:
N-RMAP Program codes : Q00 (Water Resources Management)
Q01 (Water Resources Management)

10-238 Package Number :

Problem Statement

A poorly engineered diversion ditch was the source of considerble erosion near the Monument's southwest boundary. The existing culvert was extended approximately 100 feet in 1988 to mitigate the erosion. The project appers to have successfully controlled the erosion in that area.

Description of Recommended Project or Activity

Park personnel will monitor the area adjacent to the culvert extension to detect erosion.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1993:	TEMP$-NR	MIT	Recurring	0.50	0.10
1995:	TEMP$-NR	MIT	Recurring	0.50	0.10
			Total:	1.00	0.20

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : MONITOR AND CONTROL EROSION
Sub-title: UPLAND PRAIRIE

Funding Status: Funded: 0.00 Unfunded: 0.00

Servicewide Issues : N06 (LAND USE PRAC)
N08 (CULT LANDSCAPE)
Cultural Resource Type:
N-RMAP Program codes : Q00 (Water Resources Management)
Q01 (Water Resources Management)

10-238 Package Number :

Problem Statement

Erosion is a major problem along the south boundary in Quadrant 15. Unchecked runoff from fields to the south has resulted in the formation of gullies along several natural drainages of the upland prairie. Check dams have been constructed at several locations to collect silt and temporarily slow the water flow. Several gullies have been filled with either dirt or native hay bales to further check erosion. Efforts to solve erosion problems are only temporary in nature and need to be continued until off-site problems are corrected.

Description of Recommended Project or Activity

Gullies on the upland prairie will be monitored to detect erosion. Check dams will be constructed as needed to deter erosion. Cooperation with local land owners and the Soil Conservation Service will continue to solve off-site erosion problems. When off-site problems are mitigated, gullies within the monument will be restored to original contour and planted to native vegetation.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs
	Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: Failure to monitor and repair erosion will result in the loss of part of the restored upland prairie.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 02/10/98
Initial Proposal: 1993

Title : MONITOR AND CONTROL EROSION
Sub-title: FLOOD DAMAGE MITIGATION

Funding Status: Funded: 0.00 Unfunded: 40.00

Servicewide Issues : N12 (WATER FLOW)
Cultural Resource Type:
N-RMAP Program codes : Q00 (Water Resources Management)
Q01 (Water Resources Management)

10-238 Package Number : B214

Problem Statement

Cub Creek meanders through the Monument for approximately 2-1/2 miles. At a point where the Hedgerow Trail is located near Cub Creek, the creek bank has fallen away because of erosion from flooding. A section of the trail was lost due to undercutting from water action and future flooding will cause more of this area to erode.

The prairie unit is part of a 50+ year restoration project, the second oldest tallgrass prairie restoration project in the nation. The normal water level in this section of the creek has little impact on the streambank. Normal current through the Monument is slow and has little erosive power. However, when the creek channel rises, the current through the Monument increases and is directed at the eroding area adjacent to the Hedgerow Trail. The current has cut several pockets into the streambank in the vicinity of the trail. It is unclear how many flood events it may take to cause trail closure, but examination reveals that this area is a threat to the trail system and to the prairie restoration effort. In 1993, the trail adjacent to the eroded stream bank was moved to the east because of the immediate safety hazard to visitors.

In September, 1993, Richard Inglis, Hydrologist, Water Operations Branch, along with other members of the Midwest Region Flood Damage Assessment Team, traveled to Homestead to assess damage caused by flooding and to determine measures to avert future flooding and/or flood damage. Their observations of the impacts from the 1993 flooding are contained in a field trip report.

Due to the extended period of wet weather in 1993, the water table increased causing seepage in low areas and from the banks of Cub Creek. The banks of the creek are about 20 feet high due to entrenchment of streams caused by previous agricultural practices. Seepage from these high banks caused slumping and widespread bank failure. Bank caving threatened several hundred feet of trail and restored prairie. Slumps and mud flows into the creek have been largely removed by the high water during the floods.

Elevated levels of nitrogen in the soil and groundwater probably were delivered to the stream from seepage and runoff during the floods. The U.S. Geological Survey reports that dilution from heavy rains did not reduce the concentration of pesticides and nitrates as compared to low flow concentrations. Water quality of Cub Creek was affected from sediment eroded during high water. Aquatic wildlife probably suffered from heavy sedimentation and disruption of habitat, but no measurements have been taken. Flooding is a normal and beneficial process for unimpaired river and riparian systems. However, previous incision of Cub Creek made it susceptible to impairment caused by flooding.

The team made specific recommendations to mitigate future flooding, but park personnel do not have the expertise to completely implement those recommendations. Assistance from qualified NPS personnel in the Water Resources Division and Midwest Region Resource Management Division, along with funding for travel and support, is needed to provide the necessary management and studies to help mitigate future flood damage.

Description of Recommended Project or Activity

The Midwest Region Flood Damage Assessment Team made recommendations for actions to mitigate future flooding (Memorandum from Chief, Water Resources Division to Regional Director, Midwest Region dated 11/18/93). This project would implement those recommendations. Floodplain delineation and mapping is the team's preferred way to monitor and avoid future impacts. The Water Resources Division has offered their assistance to complete this phase of the project.

For natural and cultural resource protection, qualified NPS personnel would determine the probable stream meander zone, prairie protection zone, and cultural protection zone using geomorphic, soils and vegetative studies and mapping. Each zone would detail the amount of effort allowable to repair or rebuild (harden) and stabilize natural processes. The predetermined zones would be used to decide if increasing amounts of expenditure for protection of prairie, structures, and cultural resources are required against stream bank erosion or other catastrophic processes.

Because changes in upstream watershed management and channel modification may have affected flood flows, monitoring for runoff calculations and floodplain delineations are necessary to account for future effects. This monitoring program would be established by this project.

This zone planning concept requires the assistance of the Water Resources Division and Midwest Region Resource Management Division.

Last Update: 02/10/98
Initial Proposal: 1993

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	One-time	40.00	0.00
		Total:	40.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: This alternative would allow for future flood events to take their course without any consideration for the limits of acceptable change by management. Management would be unable to make acceptable and informed decisions concerning the protection of cultural and natural resources.

Repair Creek Bank: This action would include complete rebuilding and stabilizing cutbanks which would cost up to $0.5 million. Trail rebuilding and replanting disturbed sites on the prairie will cost several thousand dollars. The assistance of the Water Resources Division would be required for technical assistance. High dollar expenditures and the inability to ensure that repairs will stand up to future flooding make this alternative not cost effective.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : MONITOR METEROLOGICAL CONDITIONS
Sub-title:

Funding Status: Funded: 5.60 Unfunded: 8.00

Servicewide Issues : N20 (BASELINE DATA)
N07 (NAT FIRE REGM)
Cultural Resource Type:
N-RMAP Program codes : F00 (Prescribed Fire Management)

10-238 Package Number :

Problem Statement

Meteorological conditions need to be monitored daily to obtain data for wildland and prescribed fire, and also for monitoring of long-term meterological trends for resource management information and research needs.

Due to the parks small staff size, personnel are not always available to collect daily weather data. An automated data collection and temporary storage system (data logger) is needed to ensure consistent data collection. As a part of the Long Term Ecological Monitoring prototype Prairie Cluster project, it is very important to have long-term data sets of meteorological data to indicate trends and extrapolate relationships to vegetation patterns, etc.

Description of Recommended Project or Activity

Park personnel will attempt to monitor weather conditions and record them daily. Data was entered in the AFFIRMS system (prior to 1991) and currently into the WIMS system (since 1993) for fire behavior predictions and development of fire prescriptions.

Due to the parks small staff size, personnel are not always available to collect daily weather data. An automated data collection and temporary storage system (data logger) will be purchased and installed, and park staff trained in data retrieval and archiving, to ensure consistent data collection.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1993:	PKBASE-NR	MON	Recurring	0.70	0.10
1994:	PKBASE-NR	MON	Recurring	0.70	0.10
1995:	PKBASE-NR	MON	Recurring	0.70	0.10
1996:	PKBASE-NR	MON	Recurring	0.70	0.10
1997:	PKBASE-NR	MON	Recurring	0.70	0.10
1998:	PKBASE-NR	MON	Recurring	0.70	0.10
1999:	PKBASE-NR	MON	Recurring	0.70	0.10
2000:	PKBASE-NR	MON	Recurring	0.70	0.10
			Total:	5.60	0.80

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	8.00	0.00
		Total:	8.00	0.00

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 02/08/98
Initial Proposal: 1993

Title : AIR QUALITY MONITORING AND RESEARCH
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 12.00

Servicewide Issues : N14 (AIR POLLUTION)
Cultural Resource Type:
N-RMAP Program codes : A00 (Air Resources Management)
A02 (Air Quality Monitoring)

10-238 Package Number :

Problem Statement

Air quality and visibility at Homestead are perceived to be good but the status of air quality is uncertain. Effects from nearby industry on air quality are unknown. There is no air quality monitoring equipment at Homestead to aid in determining levels of pollutants in the air which may have an adverse effect on natural and cultural resources.

Description of Recommended Project or Activity

Park staff informally monitor air quality and note unusual conditions in a daily weather log.

An air quality monitoring station is needed to identify levels of specific pollutants. Research to determine air quality will focus on identifying specific pollutants and provide recommendations to mitigate the effects of pollutants on the natural and cultural resources. Homestead assisted the Air Quality Division in a three-year project to determine the effects of ozone on milkweed plants at the monument. This information may be available for use as baseline data.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs

Year 1:	RES	One-time	10.00	0.00
	RES	One-time	1.00	0.10
		Subtotal:	11.00	0.10
Year 2:	RES	One-time	1.00	0.10
		Total:	12.00	0.20

(Optional) Alternative Actions/Solutions and Impacts

No Action: Without specific data to determine the levels of pollutants in the air and effects on natural and cultural resources, management will be unable to effectively determine mitigating actions.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : WILDLIFE BASELINE INVENTORY
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 31.00

Servicewide Issues : N20 (BASELINE DATA)
N02 (T&E ANIMAL)
Cultural Resource Type:
N-RMAP Program codes : W00 (Wildlife Management)
W01 (Native Terrestrial Animal Management & Monitoring)

10-238 Package Number : 148

Problem Statement

Most wildlife species known to occur in southeastern Nebraska reside in and/or migrate through the Monument. Observations include many sightings of white tailed deer, beaver, muskrat, squirrel, coyote, and numerous bird and amphibian species. No wildlife baseline data exists. With the lack of baseline data, management actions to improve habitat or manage specific species are difficult.

In particular, management has no accurate statistics on the number of deer in the park. Park neighbors have complained of deer crossing Hyway 4 as a threat to drivers of automobiles, as the deer unexpectedly cross the road. Additionally, during the 1997 winter hunting season two possible incidents of poaching were threats to the resources of the park. A scientific estimate is needed of the carrying capacity of the park and an actual count of the number of deer that reside or migrate through the park.

Wildlife habitat requirements for the various wildlife species present are unknown. A search of the literature needs to be conducted to determine space requirements for individual species. A life history table for known species that reside in or are transient through the park needs to be constructed so park staff can make informed decisions on wildlife management matters.

Population estimates are needed to ensure management actions are aimed at maintaining suitable habitat for all species in the prairie and woodland ecosystems. Population data is also needed to monitor individual species of wildlife so that management can be geared to maintaining a wildlife population that exists in a state of dynamic equilibrium.

A wildlife habitat relationship model needs to be constructed for the wildlife management decision making process.

No wildlife baseline data exists at Homestead. Therefore,

management is unable to make informed decisions for the management of wildlife. Decisions are based on information obtained by personnel completing wildlife observation records and inference from vegetation composition.

Without data to base a monitoring program on, wildlife issues cannot be properly addressed. Management decisions will continue to be based merely on wildlife observation records information and vegetation composition.

Wildlife species are an integral part of the prairie ecosystem. They are a part of the energy flow and nutrient cycle of both the woodland and prairie areas. A variety of species are known to exist at Homestead but there is no data available to determine population densities and the necessary species diversity for food chain integrity throughout the ecosystem hierarchy.

Without baseline data, park staff will be unable to determine the level of habitat diversity necessary for an effective wildlife management program.

Description of Recommended Project or Activity

Research will be contracted to a university for a 3-year project to provide the baseline data necessary for informed wildlife management decision making. For the purposes of this project, wildlife is defined as all mammals, birds, insects, reptiles and amphibians. An insect survey was begun in the 1980's and its completion is the subject of a separate project statement, N-104.002.

The information required by this research project will include:

1. Species present and population estimates.
2. Habitat requirements for the various species occurring in the park.
3. Life history tables for wildlife species occurring in the park.

The data from this project will be combined with information obtained from the vegetation monitoring program for total ecosystem management.

The data from this project will be directly applicable to interpretive programming in illustrating how the homesteading pioneers reacted to and interacted with the prairie environment where they settled. How the prairie animal population changed as a result of this time in American history can also be interpreted. A site bulletin or temporary exhibit will be developed around these themes using information from this project.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	10.00	0.00
Year 2:	RES	One-time	10.00	0.00
Year 3:	RES	One-time	10.00	0.00
	INT	One-time	1.00	0.10
		Subtotal:	11.00	0.10
		Total:	31.00	0.10

(Optional) Alternative Actions/Solutions and Impacts

No Action: Without baseline data on wildlife, park staff is unable to make wildlife habitat management decisions. Management will continue to be performed based on incomplete information. Without knowledge of population estimates and habitat requirements, unnatural wildlife populations may be allowed to exist which may result in damage to the park ecosystem.

Park neighbors continue to object to deer unexpectedly crossing the highway. The park has no scientific statistics to base its claim that this may be a perceived threat rather than a real threat to drivers.

Educational and interpretive programming will not be as effective in presenting a true picture of the tallgrass prairie landscape as a context for interpreting the homesteading movement, and the human relationship to the prairie.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : INVERTEBRATE BASELINE INVENTORY
Sub-title: ENTOMOLOGY COLLECTION

Funding Status: Funded: 0.00 Unfunded: 17.00

Servicewide Issues : N20 (BASELINE DATA)
Cultural Resource Type:
N-RMAP Program codes : C00 (Collections and Data Management)
C01 (Natural Resource Collections Management)

10-238 Package Number : 148

Problem Statement

An entomology collection was begun in 1984. There is no information to determine how complete a record of park invertebrate populations are represented by this collection. The collection needs to be evaluated, and the entomology baseline inventory completed, with associated voucher specimens acquired and preserved for the park collection.

Description of Recommended Project or Activity

A 2-year university research project will be initiated to complete the entomology collection started in 1984. The researcher will examine the existing collection to verify the accuracy of the insect collection. Needed specimens will be collected and mounted per accepted museum practices. A section of this project report will identify instructions for the periodic maintenance of the collection. An invertibrate baseline inventory will be extrapolated from this collection and a data base prepared.

Information from this project will be tied to interpretive programs and media which encourage an understanding of the complexity and inter-relatedness of the prairie ecosystem, and what that meant and will mean to humans who live on the prairie. A site bulletin or temporary exhibit will be developed to interpret the importance of prairie biodiversity, as represented by the insect population, the most diverse and least understood part of the prairie ecosystem.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	8.00	0.00
Year 2:	RES	One-time	8.00	0.00
	INT	One-time	1.00	0.10
		Subtotal:	9.00	0.10
		Total:	17.00	0.10

(Optional) Alternative Actions/Solutions and Impacts

No Action: Without completeion of this project, the Homestead entomology collection will be incomplete. Lack of baseline data will inhibit holistic management of the area, resulting in piecemeal management practices. Educational and interpretive programs will be less effective in presenting a true picture of tallgrass prairie landscape as a context for interpreting the homesteading movement, and the human relationship to the prairie.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : DECIDUOUS FOREST BASELINE INVENTORY
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 21.00

Servicewide Issues : N20 (BASELINE DATA)
Cultural Resource Type:
N-RMAP Program codes : V00 (Vegetation Management)
V01 (Native Terrestrial Plant Management and Monitoring)

10-238 Package Number :

Problem Statement

Deciduous forest covers approximately 60 acres of the Monument. Baseline data on this woodland area is inadequate and consists primarily of records of observations by employees and volunteers. The lack of baseline data inhibits the decision process for woodland and wildlife management. The effects of recent flooding and the potential/extent of exotic species encroachment cannot be determined without this baseline data.

A research project by Nebraska Wesleyan University to collect baseline data and a species collection of vegetation along Cub Creek was begun but never completed. No data was ever presented to the park and efforts to reestablish connections with the professor involved were unsuccessful.

Description of Recommended Project or Activity

Park personnel and volunteers will continue to record observations in the woodland area. A 2-year university conducted research project will provide baseline data on vegetative compositions and wildlife habitat relationships to existing vegetation. Information from this project will be utilized for interpretation of the woodland as a part of the tallgrass prairie ecosystem, management of the woodland zone for wildlife habitat, extent of exotic species encroachment, and as a base for future management decisions.

Since riparian woodland environments were very important to early settlers, and since the choice of this homestead property by Daniel Freeman was directly influenced by the presence of the woodland, the information gained from this baseline study has direct application to park interpretive programs. A site bulletin or temporary exhibit will be developed to present these themes. Also, the protection of the woodlands made possible by an understanding of the existing vegetative community will help

management present a true picture of a prairie riparian landscape as a context for interpreting the homesteading movement and the human relationship to the land.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	10.00	0.00
Year 2:	INT	One-time	1.00	0.10
	RES	One-time	10.00	0.00
		Subtotal:	11.00	0.10
		Total:	21.00	0.10

(Optional) Alternative Actions/Solutions and Impacts

No Action: Failure to obtain baseline data severely restricts initiation of management actions and interpretation of the prairie woodland ecosystem. Without this data it is difficult to determine the relationship of the woodland area to wildlife and habitat requirements. Efforts to present a true picture of the prairie landscape, which included these important riparian woodland communities, as a context for interpreting the homesteading movement, will be less effective.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Title : UPDATE PRAIRIE VEGETATION INVENTORY
Sub-title: COMPLETE HERBARIUM

Funding Status: Funded: 0.00 Unfunded: 17.00

Servicewide Issues : N20 (BASELINE DATA)
Cultural Resource Type:
N-RMAP Program codes : C00 (Collections and Data Management)
C01 (Natural Resource Collections Management)

10-238 Package Number : 149

Problem Statement

The herbarium collection at Homestead is only partially complete. Completion of the collection is necessary to make it a useful study collection for park staff and university researchers. In conjunction with completing the collection, the prairie plant species inventory list needs to be updated and verified. Many new plants have been observed in the park since the original vegetation survey was completed in the 1980's. Management decisions are hampered by having an incomplete inventory of such a critical resource component. A complete inventory is also critical to the needs of the LTEM program in which the park is involved.

Description of Recommended Project or Activity

Over a 2-year period, a qualified term employee or contractor will collect, catalog, and preserve specimens of all prairie and deciduous forest plant species not presently found in the collection at Homestead. The prairie vegetation survey will be verified and updated.

The herbarium collection will be used by the interpretive staff to demonstrate the diversity of the prairie plant community and the applied uses of plants which humans on the prairie have been discovering for centuries. This is still taking place with the development of perennial grain and fuel crops from hybrid prairie species, further extrapolating the importance of prairie biodiversity to humankind. A site bulletin or temporary exhibit will be developed around these themes and using the plant specimens gathered through this project.

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	8.00	0.00
Year 2:	INT	One-time	1.00	0.10
	RES	One-time	8.00	0.00
		Subtotal:	9.00	0.10
		Total:	17.00	0.10

(Optional) Alternative Actions/Solutions and Impacts

No Action: Without a complete baseline inventory of flora in the park, management actions to continue restoration and preservation of the prairie and woodlands may be misdirected and ineffective. Rare or sensitive species and indicator plants, as well as potentially problematic exotic species such as leafy spurge, may remain unknown.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 02/08/98
Initial Proposal: 1998

Title : INVENTORY & STUDY DEER POPULATION
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 31.00

Servicewide Issues : N20 (BASELINE DATA)
C70 (ENVRM IMPCT)
Cultural Resource Type: CULL (Cultural Landscape)
N-RMAP Program codes : N00 (Resource and Visitor Use Management)

10-238 Package Number :

Problem Statement

The park currently has no baseline data for management to describe with accuracy the number of deer in the park. Surrounding neighbors complain of too many deer crossing State Highway 4 posing a safety hazard to motorists driving through the park.

The park has had two suspicious incidents involving possible deer poaching during the winter hunting season of 1997. Hunters have put blinds along the park fence boundary in order to observe deer moving in the park. And baiting was found along the west boundary fence in order to lure deer out of the park's boundary.

Without good baseline information about deer populations, park management is not able to scientifically address questions and possible safety problems brought by the public.

Description of Recommended Project or Activity

A 3-year study will be conducted through a contract with a university group to determine the population of deer in the park, the carrying capacity in terms of vegetation and territory, and the route the deer take most frequently in moving in and out of the park boundaries.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

----------UNFUNDED----------

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	31.00	0.00
		Total:	31.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

If no study is conducted to determine deer populations, rate of reproduction, and the carrying capacity of the park, managers in the park will not be able to scientifically answer questions in regard to visitor safety on Highway 4. Without this base line information, it will be difficult to determine whether the park has an overpopulation of deer and to make management decisions about the protection of the deer as a wildlife resource here.

Compliance codes : EIS (ENV. IMPACT STATEMENT)
OTHER ()

Explanation: Base Line Data is Needed on Populat

Last Update: 02/08/98
Initial Proposal: 1993

Title : ESTABLISH GEOGRAPHIC INFORMATION SYSTEM
Sub-title:

Funding Status: Funded: 1.00 Unfunded: 49.00

Servicewide Issues : N20 (BASELINE DATA)
N24 (OTHER (NATURAL))
Cultural Resource Type:
N-RMAP Program codes : C00 (Collections and Data Management)
C03 (GIS/Data Management)

10-238 Package Number :

Problem Statement

Resource management activities are documented as work is performed. Data is collected and maintained for entry into a database. The park has purchased an EPPL-7 Geographic Information System (GIS) to be installed in a PC. Park staff have contacted various Federal and State agencies concerning available digitized data applicable to Homestead for use in GIS. In addition, the LTEM team has also been conducting data searches for the parks in the prairie cluster. At this time, very little data is available in digitized form. Homestead has a digitizing tablet, but has been unable to commit the necessary time to digitizing a base map and other needed data into the system. The Monument does not have a GIS plan completed. The GIS is needed to analyze and present data so that it is meaningful for tracking, analyzing, and decision making purposes.

Description of Recommended Project or Activity

A GIS plan needs to be completed to ensure that all GIS activities are accomplished to meet the needs of the Monument. Outside assistance will be used for development of the GIS plan. Funding is needed to acquire digital data for use in the EPPL-7 GIS, to convert existing data, and to develop data bases for use in GIS. Funding for one FTE would be utilized in the first year of the project to hire a technician for a one year appointment to bring the Monument's GIS on-line and functional for management of resources. Additional funds in the first year would be used to acquire digital data from the USGS including a DEM and DLS at a scale of 1:24,000. Data bases from existing resource management data would be established and utilized in GIS.

Funding for years 2 and 3 would be utilized for continued data base maintenance and additional digitizing needs.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1993:	PKBASE-NR	ADM	Recurring	0.50	0.10
1994:	PKBASE-NR	ADM	Recurring	0.50	0.10
			Total:	1.00	0.20

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MON	One-time	25.00	1.00
Year 2:	MON	Recurring	12.00	0.50
Year 3:	MON	Recurring	12.00	0.50
		Total:	49.00	2.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: Natural resource management data that is not readily available for analysis is not useful for management purposes. Due to small staff size, and the lack of a permanent resource management specialist, park personnel are unable to devote enough time to manually sort, analyze, and map data for use in management decisions. Without the capability to efficiently analyze data, park management is unable to make informed decisions regarding resource management actions.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 02/08/98
Initial Proposal: 1993

Title : CUB CREEK HYDROLOGY STUDY
Sub-title:

Funding Status: Funded: 0.00 Unfunded: 20.00

Servicewide Issues : N20 (BASELINE DATA)
N12 (WATER FLOW)
Cultural Resource Type:
N-RMAP Program codes : Q00 (Water Resources Management)
Q01 (Water Resources Management)

10-238 Package Number :

Problem Statement

Recent flooding of Cub Creek threatened cultural resources, including the Palmer-Epard cabin and the artifact storage area in the visitor center. Data is needed on the probability of future flooding and possible control measures.

Description of Recommended Project or Activity

A hydrological study of the Cub Creek watershed will be performed to evaluate the potential for flood control at Homestead. This study will provide recommendations for control of flooding within the monument.

BUDGET AND FTEs:

FUNDED

Source	Activity	Fund Type	Budget ($1000s)	FTEs
		Total:	0.00	0.00

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 4:	RES	One-time	20.00	0.00
		Total:	20.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: The absence of hydrological data inhibits flood management within the monument. Reactive emergency measures will continue during flooding of Cub Creek, but these measures may not be adequate to protect cultural resources.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Project Statement

HOME-N-107.001
Priority: 2
Page Num: 0120

Last Update: 02/05/98
Initial Proposal: 1993

Title : REHABILITATE AND MAINTAIN TRAIL SYSTEM
Sub-title: MAINTAIN TRAIL SYSTEM

Funding Status: Funded: 1.00 Unfunded: 49.00

Servicewide Issues : N24 (OTHER (NATURAL))
Cultural Resource Type:
N-RMAP Program codes : I00 (Interp. of Natural Resource Issues)

10-238 Package Number :

Problem Statement

Maintenance of the trail system is a continuing process that requires removal of weeds and other plants. Chat-surfaced trails require continuous costly surface replacement and maintenance, and are often impassable due to muddiness during wet weather periods and thawing. Buffalo grass trail surfaces, once established, are easily maintained, soak up and distribute moisture better, and provide a much more compatible walking surface for the interpretive and visitor use purposes of the trail system.

Chat-surfaced trails need to be rehabilitated to buffalo grass. Funding is needed for seed and supplemental labor to complete the project.

Unsafe walking surfaces exist on the boardwalk and no accessible, safe trail exists for visitors from the parking lot to the Freeman School building.

Description of Recommended Project or Activity

Chat-surfaced trails will be rehabilitated to buffalo grass over a 3-5 year time period. Funding is needed for seed and supplemental labor to complete the project. After newly seeded areas become established, park maintenance staff will maintain the trail system by periodic mowing.

BUDGET AND FTEs:

	FUNDED				
	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1996:	TEMP$-NR	MIT	Recurring	1.00	0.10

		Total:	1.00	0.10

UNFUNDED

	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	MIT	Recurring	3.00	0.20
Year 2:	MIT	Recurring	3.00	0.20
Year 3:	MIT	Recurring	3.00	0.20
Year 4:	MIT	Recurring	40.00	0.20
		Total:	49.00	0.80

(Optional) Alternative Actions/Solutions and Impacts
(No information provided)

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 09/02/97
Initial Proposal: 1993

Title : MAINTAIN NATIVE PLANTS EXHIBIT
Sub-title:

Funding Status: Funded: 6.00 Unfunded: 0.00

Servicewide Issues : N24 (OTHER (NATURAL))
Cultural Resource Type:
N-RMAP Program codes : I00 (Interp. of Natural Resource Issues)

10-238 Package Number :

Problem Statement

The native plants display requires the removal of weeds and exotic species. Plants require periodic replacement. The interpretive value of this exhibit depends on its continued maintenance.

Description of Recommended Project or Activity

Park personnel and/or volunteers will provide maintenance to the display through weeding and mowing. As necessary, grasses and forbs will be transplanted from the prairie to the native plants display. Interpretive labels will be replaced as necessary.

Park personnel are currently conducting this maintenance.

BUDGET AND FTEs:

FUNDED

	Source	Activity	Fund Type	Budget ($1000s)	FTEs
1993:	PKBASE-NR	MIT	Recurring	1.00	0.10
1994:	PKBASE-NR	MIT	Recurring	1.00	0.10
1995:	PKBASE-NR	MIT	Recurring	1.00	0.10
1996:	PKBASE-NR	MIT	Recurring	1.00	0.10
1997:	PKBASE-NR	MIT	Recurring	1.00	0.10
1998:	PKBASE-NR	MIT	Recurring	1.00	0.10
			Total:	6.00	0.60

UNFUNDED

Activity	Fund Type	Budget ($1000s)	FTEs
	Total:	0.00	0.00

(Optional) Alternative Actions/Solutions and Impacts

No Action: Without periodic maintenance, the display area will become unattractive and unusable as an interpretive device.

Compliance codes : EA (ENV. ASSESSMENT)

Explanation:

Last Update: 04/20/98
Initial Proposal: 1998

Title : CONSTRUCT FIRE EQUIPMENT BUILDING

Funding Status: Funded: 0.00 Unfunded: 216.99

Servicewide Issues : N07 (NAT FIRE REGM)
C72 (PROTECTION)

Cultural Resource Type:
N-RMAP Program codes : OTH (Other)

10-238 Package Number :

Problem Statement

The existing wooden fire cache is 100 sq. ft. and does not provide adequate protection or storage of fire equipment for one 20-person hand crew, as originally intended. The present facility provides little protection against pest rodents and insects. The fire cache is susceptible to invasion by the white-footed deer mouse, the prime carrier for hantavirus. The incidence of contamination of supplies by mouse feces and urine is high.

Presently, fire hand tools and other supplies are stored in the fire cache, Visitor Center, and Maintenance Office because of a lack of adequate storage space. Because of this lack of centralization, initial attack responses for the protection of the park's 100-acre restored tallgrass prairie may be delayed due to firefighters having to obtain equipment from three different areas.

Current outdoor storage of trailer-mounted and truck-mounted pumper units does not protect them from weather and diminishes response time for wildland fires during dry winter months. In fact, there is no overhead protection for any of the pumper units, leaving them vulnerable to ice build-up and extreme weathering due to constant exposure.

Slip-on pumpers, personal protective gear, and fire equipment maintenance gear need to be housed in the same centralized storage facility. Additionally, a concrete enclosure will provide a safe storage area for fuels.

Description of Recommended Project or Activity

Design and construct an enclosed steel shed for fire vehicles and equipment storage. The facility will also have a concrete-enclosed unit for a fuel tank. The one-story building will have a floor space of 1,539 square feet. The fire cache will be set upon a concrete pad, with three overhead garage doors one side door, electrical wiring (but non-heated), brick facade, and

sky lights set under the eaves.

Project Costs (1998 prices)

YEAR ONE

Design - $15,390

YEAR TWO

Contingency - $24,624
Supervision - $23,085
Construction - $153,900

TOTAL (both years) $216,999

BUDGET AND FTEs:

Source	Activity	Fund Type	Budget ($1000s)	FTEs
FUNDED				
		Total:	0.00	0.00
UNFUNDED				
	Activity	Fund Type	Budget ($1000s)	FTEs
Year 1:	RES	One-time	15.39	0.00
Year 2:	ADM	One-time	201.60	0.00
		Total:	216.99	0.00

(Optional) Alternative Actions/Solutions and Impacts

No action. The present fire cache will continue to deteriorate, allowing pests to continue entry which will result in contamination of supplies. Additionally, any new fire supplies or equipment will continue to be stored in scattered areas throughout the park. The fire pumper units will continue to be exposed to the weather, resulting in deterioration. If the pumpers are in a deteriorated state, they would likely fail, resulting in a lack of initial attack response or danger to firefighters involved in an incident.

Compliance codes : EXCL (CATEGORICAL EXCLUSION)

Explanation: 516 DM6 APP. 7.4 C(17)